

February 15, 2003

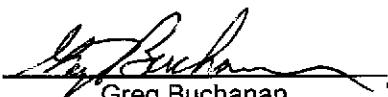
**Groundwater Monitoring Report  
Fourth Quarter 2003**

Mission Valley Rock Company  
7999 Athenour Way  
Sunol, California

Prepared for:

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Project No. EM-5009

*Alameda County*  
*Environmental Health*  
*FEB 27 2003*

**Groundwater Monitoring Report**  
**Fourth Quarter 2003**

Mission Valley Rock Company  
7999 Athenour Way  
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## TABLE OF CONTENTS

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1.0	INTRODUCTION .....	1
2.0	WORK CONDUCTED DURING PRESENT QUARTER.....	1
3.0	GROUNDWATER MONITORING ACTIVITIES.....	1
3.1	<i>GROUNDWATER ELEVATION MONITORING</i> .....	1
3.2	<i>GROUNDWATER SAMPLING</i> .....	2
4.0	LABORATORY ANALYSES .....	2
4.1	<i>GROUNDWATER ANALYTICAL RESULTS</i> .....	2
5.0	SUMMARY .....	2
6.0	RECOMMENDATIONS .....	3
7.0	QUALITY ASSURANCE/QUALITY CONTROL .....	3
8.0	LIMITATIONS.....	4

## FIGURES

1. Site Vicinity Map
2. Site Plan with groundwater elevations
3. Site Plan with Dissolved TPHg Concentrations (December 22, 2003)
4. Site Plan with Dissolved TPHd Concentrations (December 22, 2003)
5. Site Plan with Dissolved MTBE Concentrations (December 22, 2003)

## TABLES

1. Well Construction and Groundwater Elevation Data (December 22, 2003)
2. Groundwater Analysis Summary (December 22, 2003)
3. Historical Summary of Groundwater Data
4. Historical Summary of Groundwater Sample Analytical Results

## APPENDICES

- A. Charts
- B. Well Sampling Field Data Sheets
- C. Analytical Laboratory Reports



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**GROUNDWATER MONITORING REPORT - FOURTH QUARTER 2003**  
**MISSION VALLEY ROCK COMPANY**  
**SUNOL, CALIFORNIA**

## **1.0 INTRODUCTION**

Tait Environmental Management, Inc. (TEM) is pleased to submit this Fourth Quarter 2003 Groundwater Monitoring Report for environmental services conducted at Mission Valley Rock Company (MVR) located at 7999 Athenour Way in Sunol, California (Site, see Figure 1). This report has been prepared by or under the direct supervision of a California Registered Geologist. The groundwater monitoring activities were conducted by TEM in accordance with the Alameda County Health Care Services Agency (ACHCSA) guidelines.

## **2.0 WORK CONDUCTED DURING PRESENT QUARTER**

Work conducted by TEM during the Fourth Quarter of 2003 included:

- Measured depth-to-groundwater in monitoring wells MW-1 and MW-3 for evaluation of groundwater flow direction and presence of liquid phase hydrocarbons (LPH). Groundwater monitoring well MW-2 was accidentally destroyed prior to the fourth quarter 2003 sampling event.
- Collected groundwater samples from each well for analysis of total petroleum hydrocarbons as diesel and gasoline (TPHd and TPHg, respectively); benzene, toluene, ethylbenzene, and total xylenes (BTEX); and methyl-tert-butyl ether (MTBE).
- Submitted to the client the *Fourth Quarter 2003 Groundwater Monitoring Report*, February 15, 2003.

## **3.0 GROUNDWATER MONITORING ACTIVITIES**

### **3.1 *Groundwater Elevation Monitoring***

On December 22, 2003 TEM measured and recorded static groundwater levels in two (2) groundwater monitoring wells using a product/water interface meter. The meter was decontaminated prior to use at each well using a mild detergent solution and two (2) de-ionized water rinses.

Water levels were measured from the top of the well casings representing the wellhead survey points. Liquid phase hydrocarbon (LPH) was not observed in the monitoring wells. LPH has historically been observed in monitoring well MW-2. A historical summary LPH thickness in well MW-2 is presented in Table 3 and plotted over time in Chart 6 (Appendix A).

Based on the data, the depth to groundwater measured at the Site averaged 5.90 feet below ground surface (bgs). Groundwater elevation data is summarized in Table 1 and shown on Figure 2. A historical summary of groundwater elevation data is summarized in Table 3 and shown in Chart 1 (Appendix A).



### **3.2 Groundwater Sampling**

Prior to collecting samples, groundwater was purged using a 12-volt DC submersible pump for each well. The polyethylene tubing for the pump discharge was discarded and replaced for each well. The pump was decontaminated prior to pumping each well with a detergent bath followed by two (2) de-ionized water rinses.

A minimum of three (3) casing volumes of water were purged from each of the monitoring wells until measurements of temperature, pH, electrical conductivity, turbidity, dissolved oxygen, and oxygen reduction potential (ORP) stabilized. Groundwater was allowed to recharge to at least 80 percent of the static level prior to collecting the groundwater samples. Copies of the well sampling field data sheets are presented in Appendix B.

Groundwater samples were collected using a new disposable bailer for each well. The groundwater samples were placed in a chilled cooler and hand delivered to the laboratory using chain-of-custody procedures.

The purged groundwater and decontamination water was stored onsite in one (1) Department of Transportation (DOT) approved 55-gallon steel drum pending the results of the laboratory analysis.

## **4.0 LABORATORY ANALYSES**

Groundwater samples collected from the groundwater monitoring wells were analyzed for:

- Volatile Organic Compounds (VOC's) using Method No. 8260B; and
- TPHd and TPHg using Method 8015B.

### **4.1 Groundwater Analytical Results**

Laboratory analyses of the groundwater samples were conducted by Severn Trent Laboratories, Inc. (STL), a State-Certified laboratory located in Santa Ana, California. Fourth Quarter 2003 groundwater sample analytical results are summarized in Table 2 and shown in Figure 3 (MTBE). Laboratory reports are presented in Appendix C. A historical summary of groundwater sample analytical results is summarized in Table 4. Charts 2 through 5 present historic measurements of TPHd, TPHg, MTBE, and benzene, respectively (Appendix A).

## **5.0 SUMMARY**

Based upon the data presented in this report, previous investigations, current regulatory guidelines, and the judgment of TEM, the following summary of findings and conclusions are presented:

- Groundwater samples were collected from groundwater monitoring wells MW-1 and MW-3. The samples were submitted to STL under chain of custody protocol;
- Based on the data, the depth to groundwater measured at the Site averaged 5.90 feet bgs.
- Liquid phase hydrocarbon was not observed in the monitoring wells during the Fourth Quarter sampling event. Due to the lack of LPH, removal was not performed this quarter. Should LPH be present next quarter, tabulation of LPH removal will resume;
- The depth to static groundwater at the Site has dropped slightly since last quarter.



- TPHd concentrations (5.7 milligrams per Liter [mg/L]) was detected in groundwater sample collected from well MW-3. TPHg concentrations (0.49 mg/L and 0.19 mg/L) were detected in groundwater samples collected from wells MW-1 and MW-3, respectively;
- Benzene concentrations were not detected in samples from the groundwater monitoring wells at the SITE;
- Concentrations of MTBE were reported in the groundwater samples collected from well MW-3 at 56 ug/L;
- Interpretations of Charts 2 through 5 indicate that concentrations of TPHd have shown a slight increase in well MW-3, and MW-1 continues to be non-detect. Concentrations of TPHg decreased in MW-1, while concentrations in MW-3 increased slightly. Concentrations of MTBE have remained non-detectable in well MW-1 since March of 2001, but MW-3 has shown an increase. Benzene was non-detect in all of the wells this quarter. In general, the compounds of concern have remained within historically reported ranges.

## **6.0 RECOMMENDATIONS**

Based on the data obtained, current regulatory guidelines, and the professional judgment of TEM, the following recommendations are presented for your consideration:

- Repair or replace MW-2.
- Install three (3) additional groundwater monitoring wells to determine groundwater flow direction and plume definition.
- Continue quarterly groundwater monitoring of all existing and future wells for dissolved hydrocarbons, BTEX/MTBE, and presence of LPH.

## **7.0 QUALITY ASSURANCE/QUALITY CONTROL**

To increase the confidence levels in the data obtained and minimize the likelihood that judgments were made from potentially erroneous data, a quality assurance/quality control (QA/QC) program was implemented. QA refers to management of actions designed to maintain precision, accuracy, completeness, and representativeness of the data developed from the project. QC refers to accepted formal procedures and activities specifically designed for the purpose of collecting data that are intended to be reliable and consistent for the Site conditions.

The laboratory reported all of the sample results to be within acceptable percent recoveries with no results exceeding the laboratory-established quality control parameters. The percent recoveries on the laboratory control sample (LCS) were well within the laboratories published QA/QC criteria. The results of the matrix spike (MS) and matrix spike duplicate (MSD) were also with acceptable limits. The samples arrived at the laboratory within the normal acceptable temperature range (4°C +/- 2°C) and were extracted and analyzed within acceptable holding times for each method and each sample. The QA/QC objectives for this project have been met.

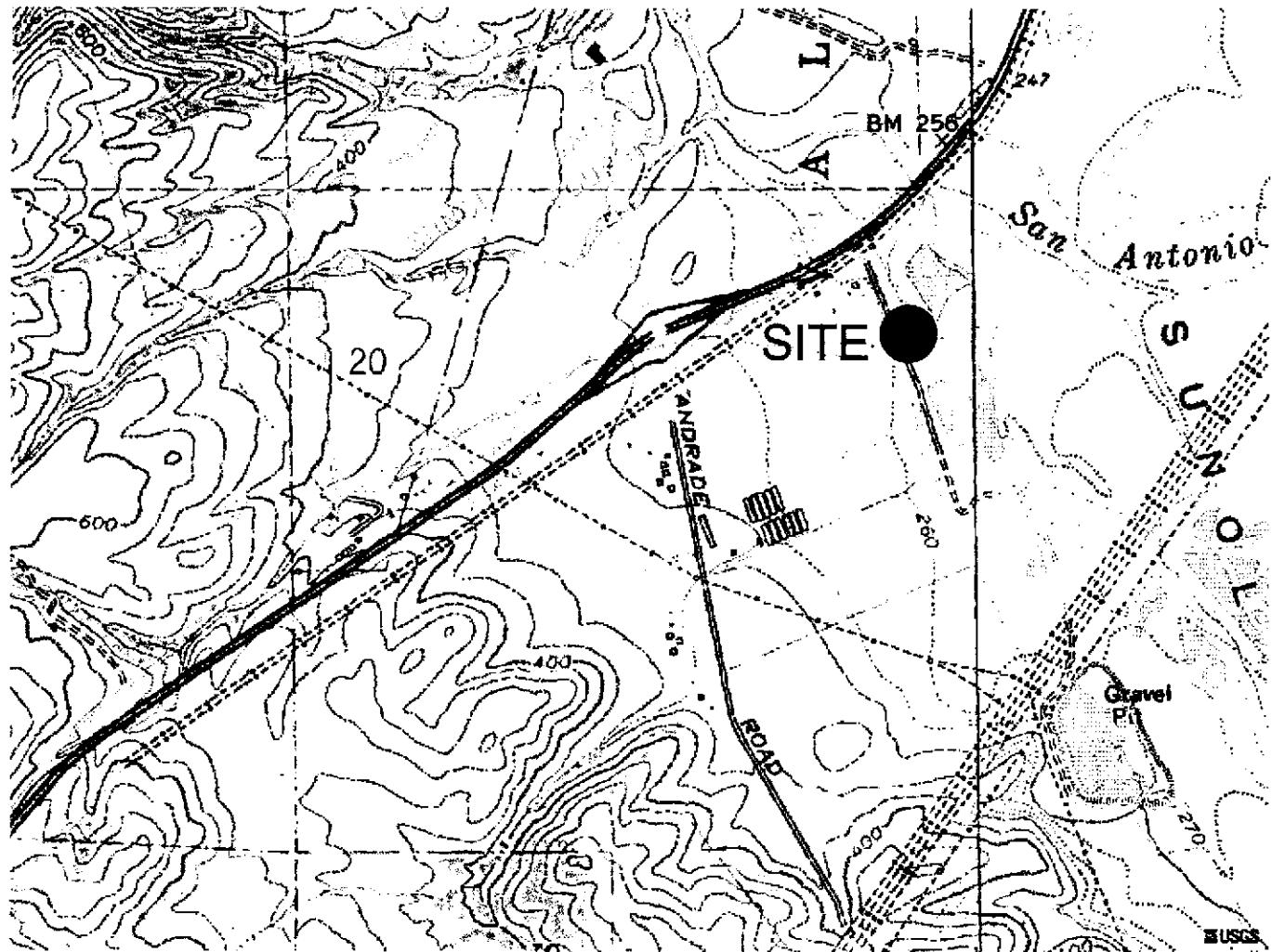


## **8.0 LIMITATIONS**

No investigation is considered thorough enough to exclude the presence of hazardous materials at a given site. Any opinions and/or recommendations presented apply to site conditions existing at the time of the performance of services.

TEM is unable to report on or accurately predict events that may impact the site following conduct of the described services, whether occurring naturally or caused by external forces. TEM assumes no responsibility for conditions that we were not authorized to investigate or conditions not generally recognized as environmentally unacceptable at the time services were performed.

Services hereunder were performed in accordance with our agreement and understanding with, and solely for the use of, Mission Valley Rock Company. We are not responsible for the subsequent separation, detachment or partial use of this document. Any reliance on this report by a third party shall be at such party's sole risk.



NORTH



1" = 2000'

NOTES:

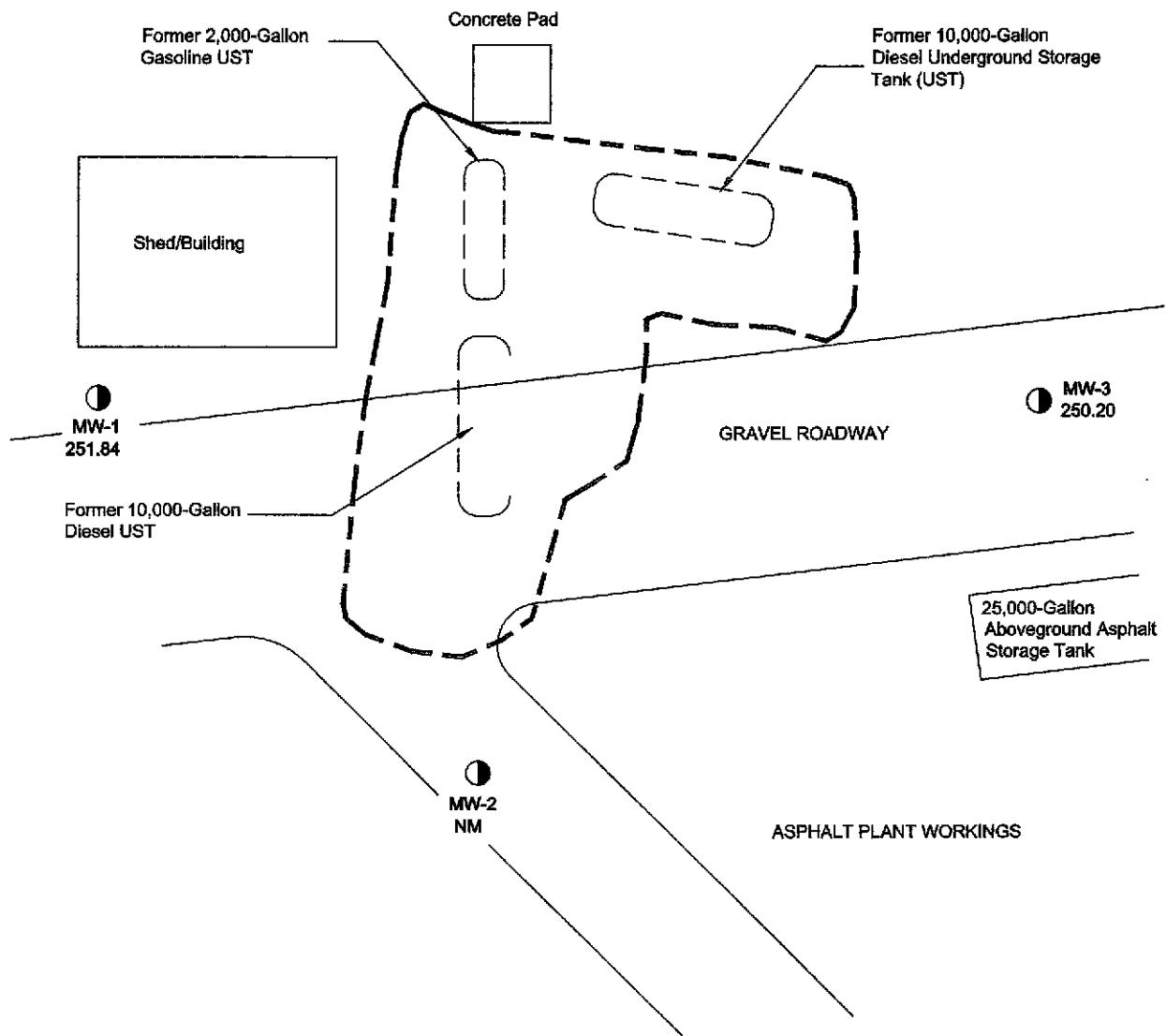
BASE MAP TAKEN FROM TERRASERVER.COM, UNITED STATES  
GEOLOGICAL SURVEY (USGS), FREMONT QUADRANGLE,  
ALAMEDA COUNTY, CALIFORNIA. PRINTED JULY 1, 1989.

**TAT**  
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SITE VICINITY MAP  
MISSION VALLEY ROCK CO.  
7999 ATHENOUR WAY  
SUNOL, CALIFORNIA

PROJECT NO. EM-5009

FIGURE 1



#### LEGEND

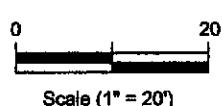
Base map referenced from Tank Protect Engineers

All locations and dimensions are approximate

 MW-1 Groundwater monitoring well location with groundwater elevation in feet above mean sea level (ft-msl)  
 251.84

— — — — Approximate limits of former UST excavation

NM Not Measured



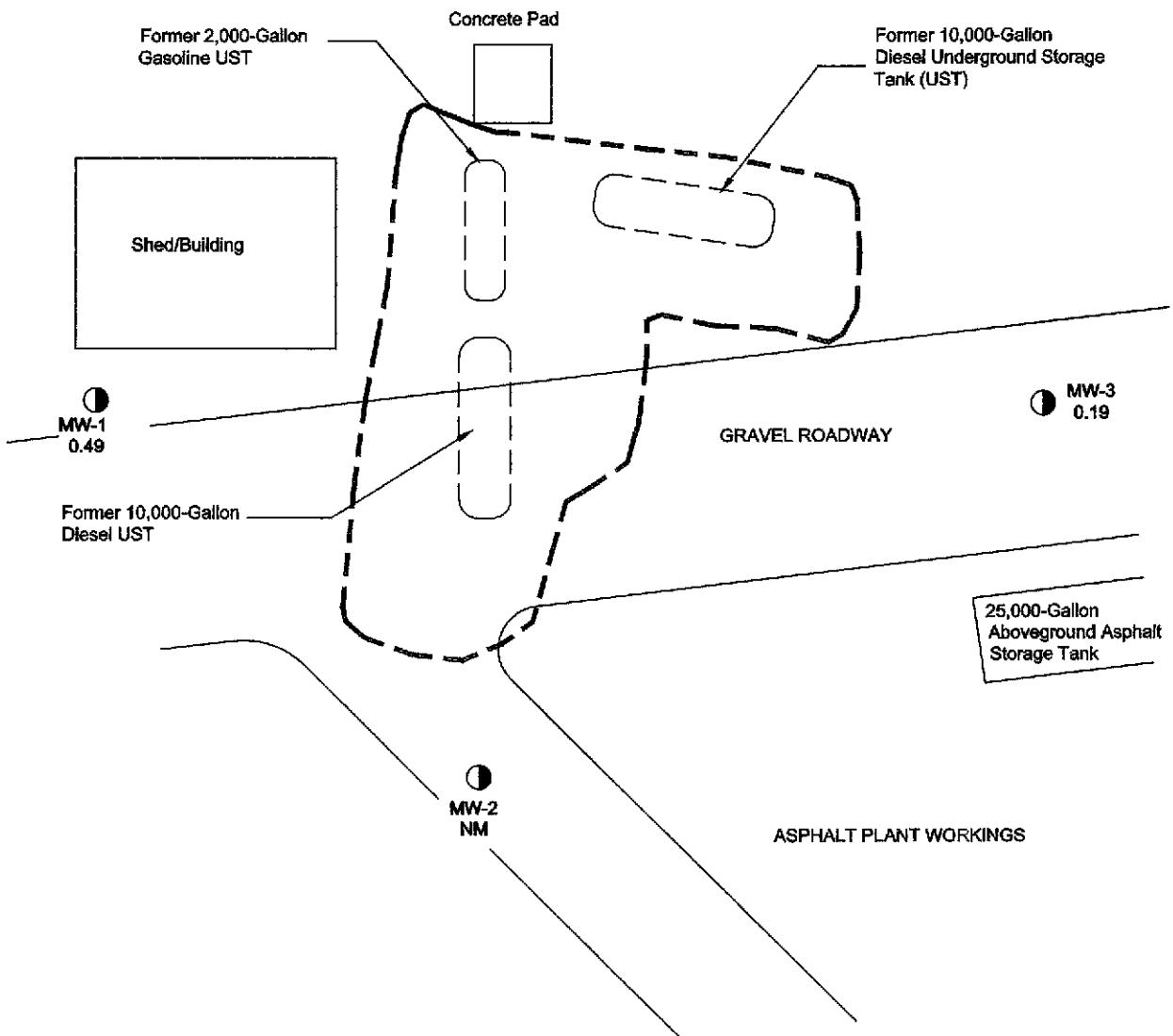
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SITE PLAN WITH GROUNDWATER ELEVATIONS  
FOURTH QUARTER (DECEMBER 22, 2003)

MISSION VALLEY ROCK CO.  
7999 ATHENOUR WAY  
SUNOL, CALIFORNIA

PROJECT NO. EM-5009

FIGURE 2



#### LEGEND

Base map referenced from Tank Protect Engineers.

All locations and dimensions are approximate.

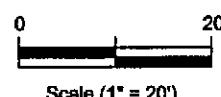
Total petroleum hydrocarbons as gasoline (TPHg) concentrations reported in milligrams per Liter (mg/L).



Groundwater monitoring well location and designation with dissolved TPHg concentrations

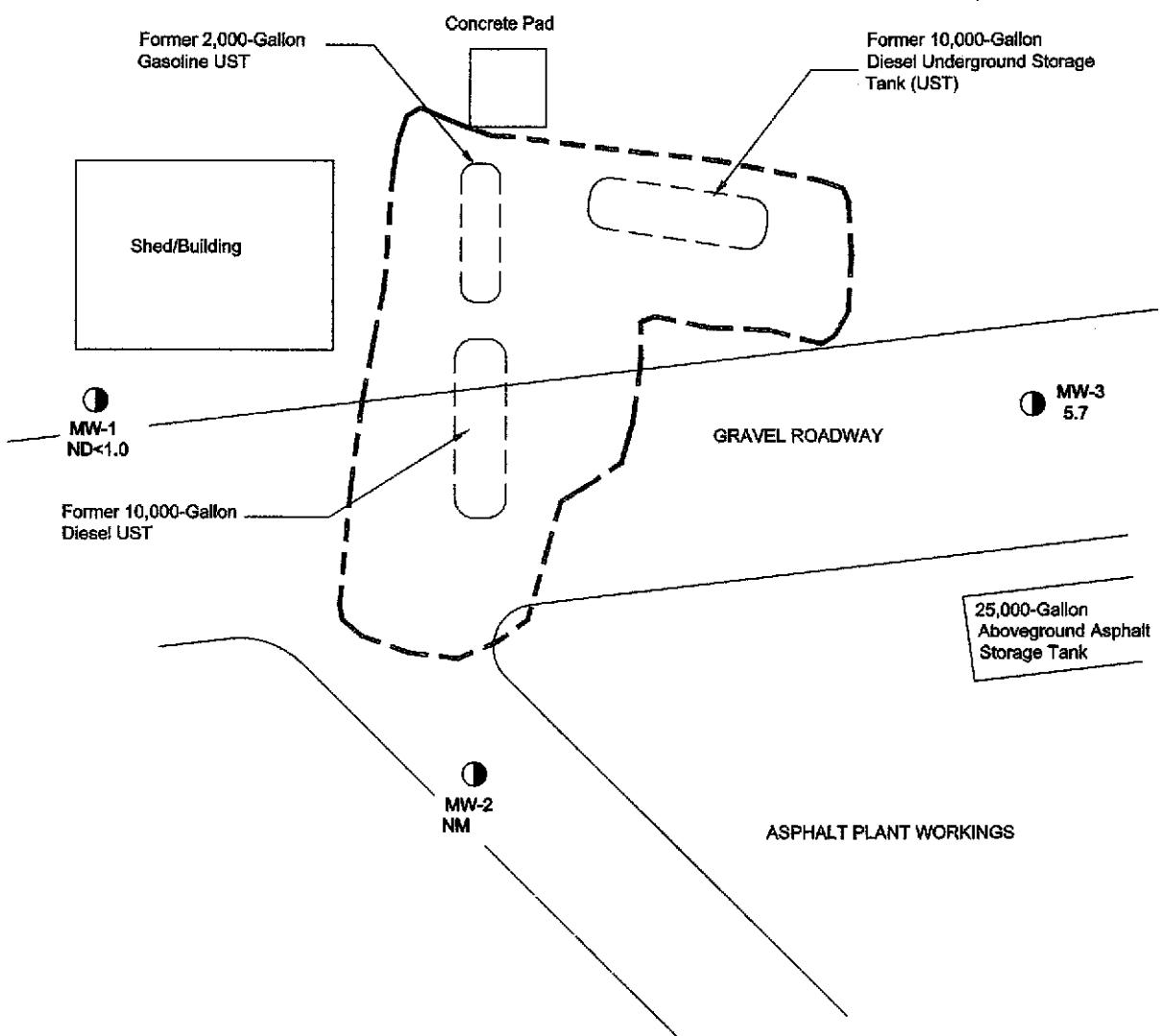
— — — — Approximate limits of former UST excavations

NM Not Measured



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SITE PLAN WITH DISSOLVED TPH-G CONCENTRATIONS  
FOURTH QUARTER (DECEMBER 22, 2003)  
MISSION VALLEY ROCK CO.  
7999 ATHENOUR WAY  
SUNOL, CALIFORNIA



#### LEGEND

Base map referenced from Tank Protect Engineers.

All locations and dimensions are approximate.

Total petroleum hydrocarbons as gasoline (TPHd) concentrations reported in milligrams per Liter (mg/L).

MW-3 Groundwater monitoring well location and designation with dissolved TPHd concentrations  
5.7

— — — Approximate limits of former UST excavations

NM Not Measured

0 20  
Scale (1" = 20')



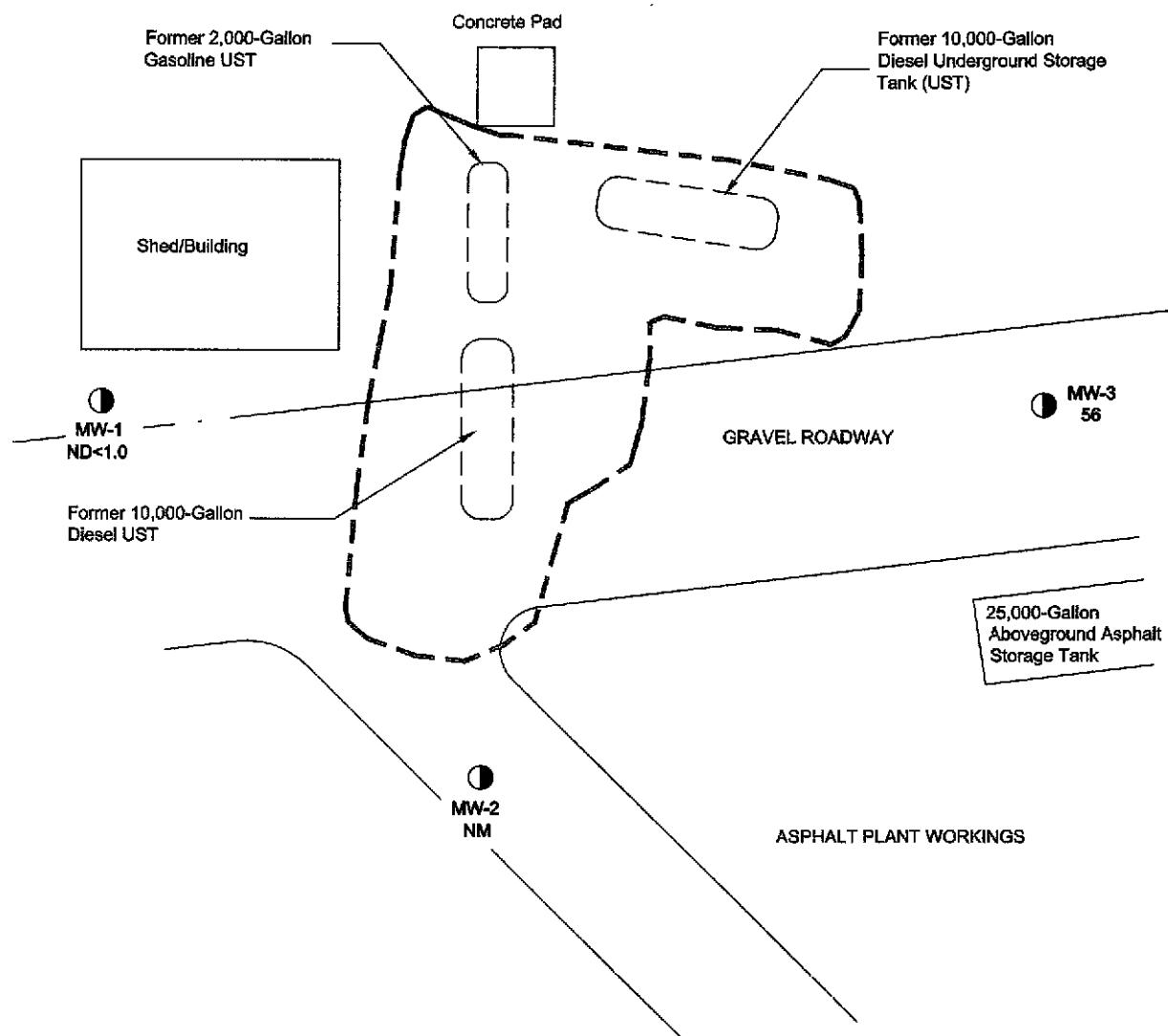
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SITE PLAN WITH DISSOLVED TPHd CONCENTRATIONS  
FOURTH QUARTER (DECEMBER 22, 2003)

MISSION VALLEY ROCK CO.  
7999 ATHENOUR WAY  
SUNOL, CALIFORNIA

PROJECT NO. EM-5009

FIGURE 4



#### LEGEND

Base map referenced from Tank Protect Engineers.

All locations and dimensions are approximate.

MTBE concentrations reported in micrograms per Liter (ug/L).



MW-3  
56

Groundwater monitoring well location and designation with dissolved MTBE concentrations

— — — — Approximate limits of former UST excavations

NM Not Measured



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SITE PLAN WITH DISSOLVED MTBE CONTOURS  
FOURTH QUARTER (DECEMBER 22, 2003)

MISSION VALLEY ROCK CO.  
7999 ATHENOUR WAY  
SUNOL, CALIFORNIA

PROJECT NO. EM-5009

FIGURE 5

**Table 1**  
**Well Construction and Groundwater Elevation Data**  
**Fourth Quarter 2003**  
**Mission Valley Rock Company**  
**Sunol, California**

Well ID	Casing Diameter	Depth to LPH	Depth to Water	LPH Thickness	Total Depth	Screened Interval	Measuring Point Elevation	Groundwater Elevation	Comments
MW-1	2	ND	4.67	ND	18.95	5.0 - 20.0	256.51	251.84	
MW-2	2	NM	NM	NM	NM	NM	NM	NM	
MW-3	2	ND	6.52	ND	16.98	5.0 - 20.0	256.72	250.20	

Screened intervals are approximated. Screened interval in wells is lower than the measured total depth due to silting in the bottom of wells.

The measurement point for the above three wells is the north side of the top of casing.

Depth to water and total depth measurements taken by Tait Environmental Management, Inc. personnel on December 22, 2003.

Casing diameter reported in inches (in); depth to LPH, depth to water, total depths, and screened interval reported in feet below measuring point (ft-bmp); LPH thickness reported in feet; measuring point elevation and groundwater elevations reported in feet above mean sea level.

Total depth and depth to water measurements taken by Tait Environmental Management from designated measurement point.

Adjusted groundwater elevation = Measurement Point Elevation - Depth to Water + (LPH Thickness x 0.75).

LPH = Liquid Phase Hydrocarbons

ND = Not Detected

NM = Not Measured

**Table 2**  
**Groundwater Sample Analytical Data**  
**Fourth Quarter 2003**  
**Mission Valley Rock Company**  
**Sunol, California**

Well	Date	TPHd (mg/L)	TPHg (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)
MW-1	12/22/2003	ND<1.0	0.49	ND<1.0	ND<1.0	3.0	ND<1.0	ND<1.0
MW-2*	12/22/2003	NM	NM	NM	NM	NM	NM	NM
MW-3	12/22/2003	5.7	0.19	ND<2.0	ND<2.0	ND<2.0	ND<2.0	56

Notes:

Analyses for Total Petroleum Hydrocarbons as Gasoline and Diesel (TPHg and TPHd, respectively) were performed using EPA Method No. 8015M.

Analyses for benzene, toluene, ethylbenzene, total xylenes, and methyl-tert-butyl ether (MTBE) were performed using EPA Method No. 8260B.

Depth to water and total depth measurements taken by Tait Environmental Management, Inc. personnel on December 22, 2003.

Total xylene concentrations were determined by adding m,p-xylene and o-xylene from laboratory report.

NM = Not Measured

mg/L = Milligrams per Liter

ug/L = Micrograms per Liter

ND = Non-detect at or above corresponding laboratory reporting limit.

**Table 3**  
**Historical Groundwater Data**  
**Mission Valley Rock Company**  
**Sunol, California**

Well	Date	Depth to Water	Groundwater Elevation	TCH (Thickness)
MW-1	Jun-98	1.32	255.19	ND
	Jan-99	2.28	254.23	ND
	Mar-99	1.88	254.63	ND
	Jun-99	3.35	253.16	ND
	Sep-99	3.66	252.85	ND
	Dec-99	2.94	253.57	ND
	Mar-00	2.72	253.79	Odor
	Jun-00	4.01	252.50	Slight Odor
	Sep-00	5.11	251.40	Slight Odor
	Dec-00	4.95	251.56	ND
	Mar-01	2.28	254.23	ND
	Jun-01	3.60	252.91	ND
	Sep-01	6.50	250.01	ND
	Dec-01	1.29	255.22	ND
	Mar-02	2.91	253.60	ND
	Jun-02	3.95	252.56	ND
	Sep-02	5.18	251.33	ND
	Dec-02	3.90	252.61	ND
	Mar-03	1.40	255.11	ND
MW-2	Jun-98	1.72	254.98	0.005
	Jan-99	2.69	254.01	4.00
	Mar-99	2.50	254.20	ND
	Jun-99	4.00	252.70	Sheen
	Sep-99	4.54	252.16	0.50
	Dec-99	3.85	252.85	0.13
	Mar-00	3.20	253.50	0.03
	Jun-00	4.62	252.08	0.02
	Sep-00	5.95	250.75	>0.01
	Dec-00	5.65	251.05	0.07
	Mar-01	3.21	253.57*	0.10
	Jun-01	3.31	253.44*	0.06
	Sep-01	7.08	249.88*	0.34
	Dec-01	2.18	254.72*	0.26
	Mar-02	3.40	253.98*	0.90
	Jun-02	4.35	252.33*	0.08
	Sep-02	5.54	251.16	ND
	Dec-02	4.30	252.40	ND
	Mar-03	1.78	254.92	ND
	Jun-03	3.10	253.60	ND
	Sep-03	5.02	251.68	ND
	Dec-03	NM	NM	NM
MW-3	Jun-98	2.66	254.06	ND
	Jan-99	4.47	252.25	Slight Odor
	Mar-99	3.96	252.76	Sheen
	Jun-99	5.54	251.18	ND
	Sep-99	6.18	250.54	Sheen
	Dec-99	5.52	251.20	Odor
	Mar-00	4.61	252.11	Odor
	Jun-00	6.35	250.37	Very Slight Odor

**Table 3**  
**Historical Groundwater Data**  
**Mission Valley Rock Company**  
**Sunol, California**

Well	Date	Depth to Water	Groundwater Elevation (ft)	LPH Thickness
MW-3	Sep-00	7.30	249.42	Very Slight Odor
	Dec-00	7.29	249.43	ND
	Mar-01	4.73	251.99	ND
	Jun-01	NM	NM	NM
	Sep-01	7.89	248.83	ND
	Dec-01	3.77	252.95	ND
	Mar-02	5.12	251.60	ND
	Jun-02	6.52	250.20	ND
	Sep-02	7.28	249.44	ND
	Dec-02	6.40	250.32	ND
	3-Mar	4.01	252.71	ND
	Jun-03	5.13	251.59	ND
	Sep-03	5.13	250.20	ND
	Dec-03	7.2	249.52	ND

Depth to water and liquid phase hydrocarbon (LPH) thickness reported in feet below measurement point.

Groundwater elevations reported in feet above mean sea level (msl).

Adjusted groundwater elevation = Measurement Point Elevation - Depth to Water + (LPH Thickness x 0.75)

NM = Not Measured

ND = Not Detected

**Table 4**  
**Historical Groundwater Sample Analytical Results**  
**Fourth Quarter 2003**  
**Mission Valley Rock Company**  
**Sunol, California**

Well	Date	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-1	Jun-98	0.1	3,100	19	2.3	91	48	110
	Oct-98	0.1	2,300	3.1	4.2	5.0	15	ND<0.50
	Dec-98	350	ND<50	12	7.5	20	6.2	ND<5.0
	Mar-99	190	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Jun-99	210	1,800	1.2	0.9	1.5	4.6	ND<0.5
	Sep-99	62	180	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.5
	Dec-99	290	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Mar-00	86	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Jun-00	70	450	2.1	ND<0.5	2.1	1.4	7.6
	Sep-00	ND<50	850	5.4	ND<0.50	9.4	2.6	9.8
	Dec-00	ND<1.0*	0.37*	5.3	ND<1.0	2.7	ND<3.0	55
	Mar-01	ND<1.0*	0.7*	ND<1.0	ND<1.0	1.4	ND<1.0	ND<1.0
	Jun-01	ND<1.0*	0.17*	ND<1.0	ND<1.0	1.2	ND<1.0	ND<1.0
	Sep-01	ND<1.0*	0.73*	1.4	ND<1.0	7.6	1.2	ND<1.0
	Dec-01	1*	0.5*	15	ND<1.0	27	5.5	ND<1.0
	Mar-02	12*	29*	50	ND<25	960	290	ND<25
	Jun-02	ND<1.0*	1.4*	3.5	ND<1.0	42	7.9	ND<1.0
	Sep-02	1.4*	0.76*	ND<1.0	ND<1.0	4.3	1.1	ND<1.0
	Dec-02	ND<1.0*	1.6*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	Mar-03	ND<1.0*	0.62*	1.2	ND<1.0	12	ND<1.0	ND<1.0
	Jun-03	ND<1.0*	0.61	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	Sep-03	ND<1.0*	1.2	ND<1.0	ND<1.0	6.4	ND<1.0	ND<1.0
	Dec-03	ND<1.0	0.49	ND<1.0	ND<1.0	3.0	ND<1.0	ND<1.0
MW-2	Jun-98	12,000	2,500	0.68	ND<0.50	1.2	0.57	14
	Oct-98	4,300	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	Dec-98	38,000	ND<5,000	ND<50	ND<50	51	190	ND<500
	Mar-99	580	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Jun-99	4,500	24,000	38	27	41	98	ND<0.5
	Sep-99	24,000	1,400	ND<0.50	ND<0.50	ND<0.50	ND<0.50	27
	Dec-99	2,300	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Mar-00	620	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Jun-00	1,700	270	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17
	Sep-00	5,800	130	ND<0.50	ND<0.50	ND<0.50	0.94	12
	Dec-00	19*	7.1*	ND<50	ND<50	ND<50	ND<150	ND<250
	Mar-01	610*	3.3*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	9.0
	Jun-01	8.8*	1.8*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	6.7
	Sep-01	530*	7.0*	ND<50	ND<50	ND<50	ND<50	ND<50
	Dec-01	27*	0.31*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	62
	Mar-02	65*	0.13*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	30
	Jun-02	130*	0.46*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	24
	Sep-02	480*	0.29*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	16
	Dec-02	61*	1.8*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	10
	Mar-03	5.0*	ND<0.10*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	14
	Jun-03	8.1	0.36	ND<1.0	ND<1.0	ND<1.0	ND<1.0	20
	Sep-03	85	12	ND<1.0	ND<1.0	ND<1.0	ND<1.0	15
	Dec-03	NM	NM	NM	NM	NM	NM	NM
MW-3	Jun-98	12,000	300	0.80	ND<0.50	ND<0.50	ND<0.50	150
	Oct-98	6400	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	Dec-98	5,600	ND<100	1.6	1.4	ND<1.0	ND<1.0	110

**Table 4**  
**Historical Groundwater Sample Analytical Results**  
**Fourth Quarter 2003**  
**Mission Valley Rock Company**  
**Sunol, California**

Well	Date	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-3	Mar-99	150	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Jun-99	620	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Sep-99	1,500	230	ND<0.50	ND<0.50	ND<0.50	ND<0.50	89
	Dec-99	58	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Mar-00	94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Jun-00	240	170	ND<0.5	0.52	ND<0.5	ND<0.5	100
	Sep-00	850	170	0.81	ND<0.50	ND<0.50	ND<0.50	68
	Dec-00	1.6*	0.23*	ND<1.0	ND<1.0	ND<1.0	ND<3.0	80
	Mar-01	1.1*	0.14*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	83
	Jun-01	NS	NS	NS	NS	NS	NS	NS
	Sep-01	3.8*	ND<0.10*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	45
	Dec-01	3.1*	0.34*	1.4	1.1	10	3.8	45
	Mar-02	1.5*	ND<0.10*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	50
	Jun-02	ND<1.0*	0.16*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	36
	Sep-02	ND<1.0*	ND<0.10*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	43
	Dec-02	ND<1.0*	ND<0.10*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	41
	Mar-03	ND<1.0*	ND<0.10*	ND<2.5	ND<2.5	ND<2.5	ND<2.5	92
	Jun-03	1.2	ND<0.10*	ND<2.0	ND<2.0	ND<2.0	ND<2.0	93
	Sep-03	ND<1.0*	ND<0.10*	ND<2.0	ND<2.0	ND<2.0	ND<2.0	65
	Dec-03	5.7	0.19	ND<2.0	ND<2.0	ND<2.0	ND<2.0	56

Concentrations reported in micrograms per Liter (ug/L).

\*Concentrations reported in milligrams per Liter (mg/L).

MTBE = Methyl-tert-Butyl Ether

ND = Not Detected at or above corresponding reporting limit

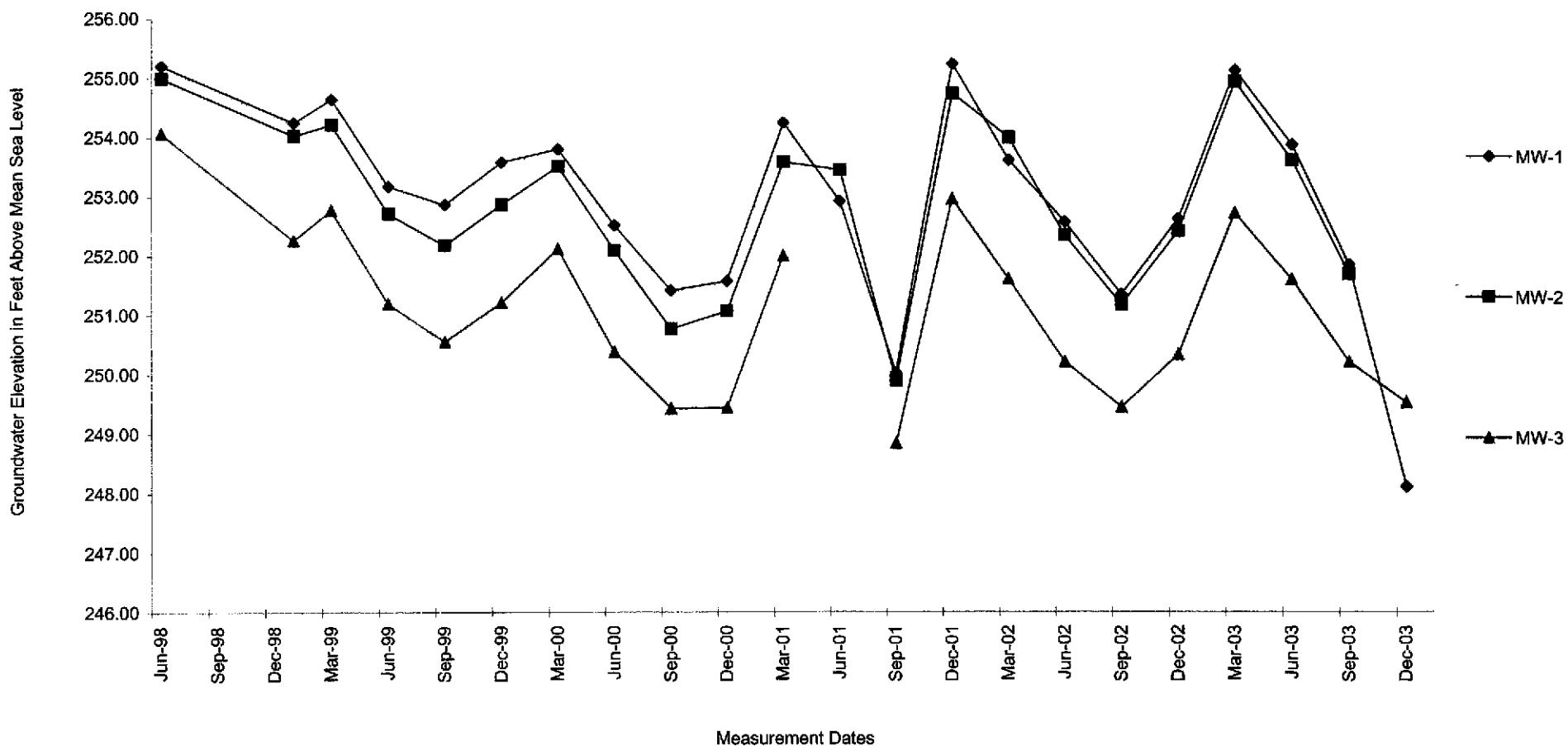
NS = Not Sampled

TPHd = Total Petroleum Hydrocarbons as Diesel

TPHd = Total Petroleum Hydrocarbons as Gasoline

NM: Not Measured

**Chart 1**  
**Groundwater Hydrograph -Fourth Quarter 2003**  
Mission Valley Rock Company  
Sunol, California



**Chart 2**  
**Historical TPHd Concentrations - Fourth Quarter 2003**  
Mission Valley Rock Company  
Sunol, California

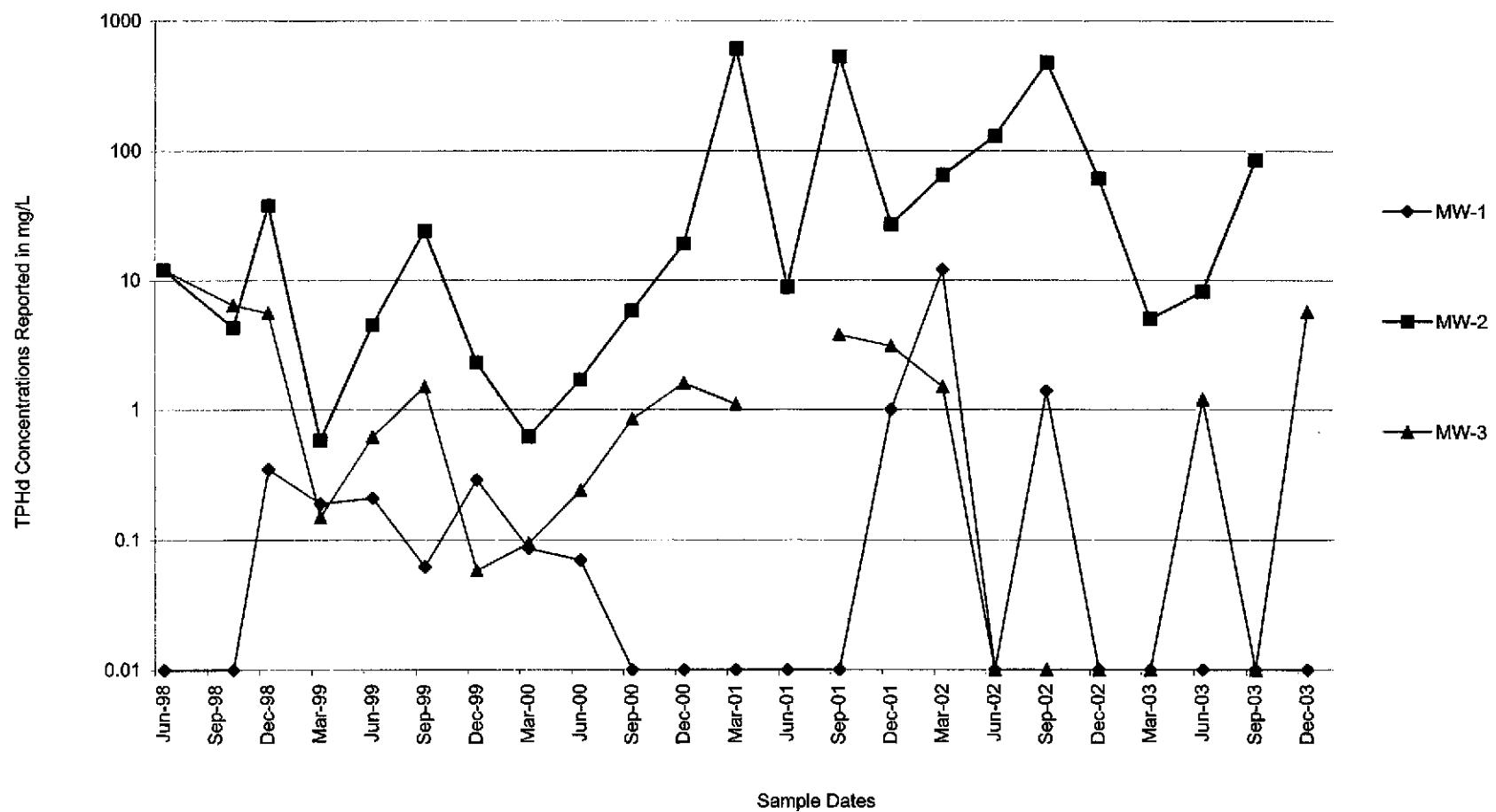
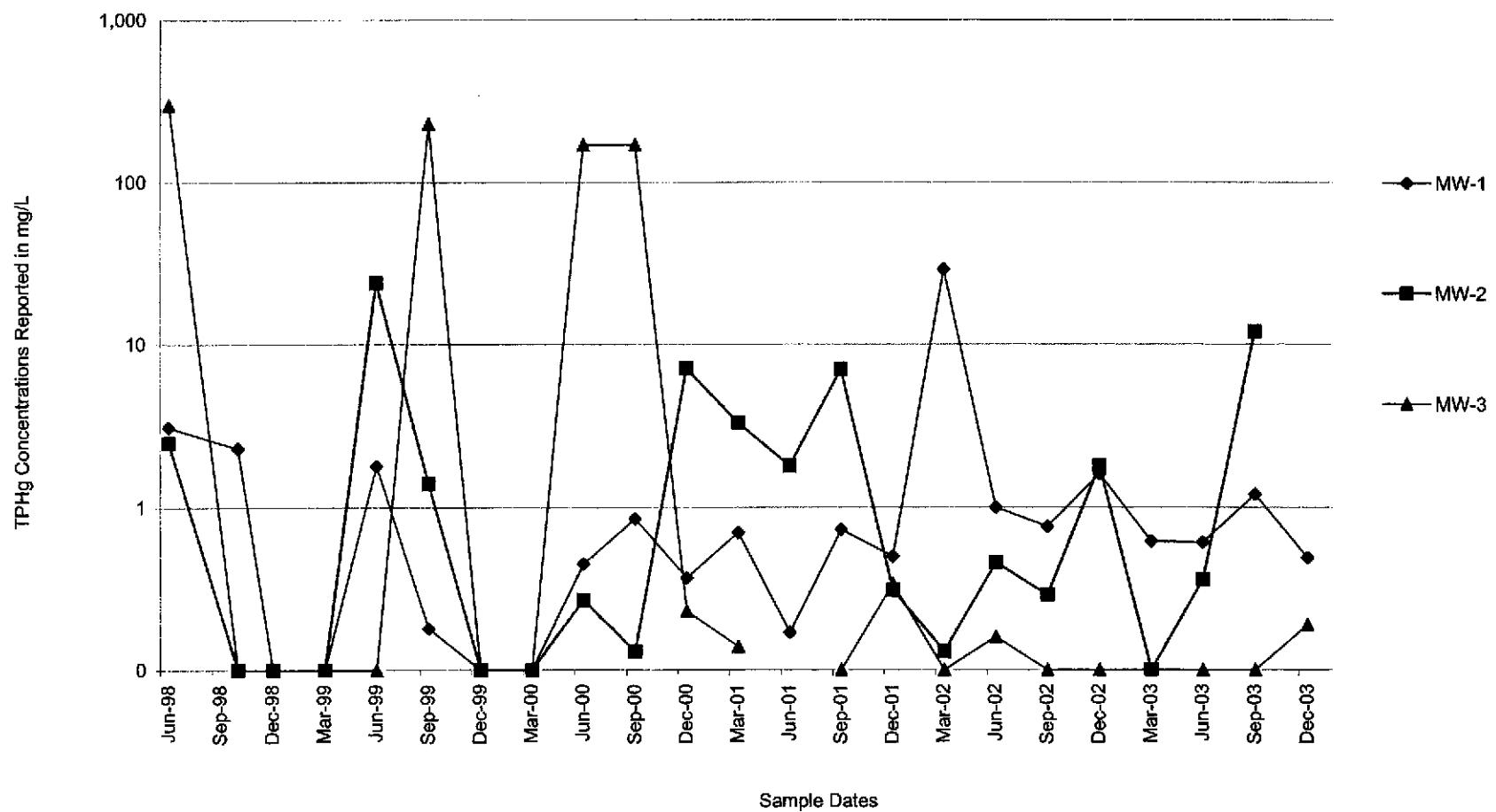
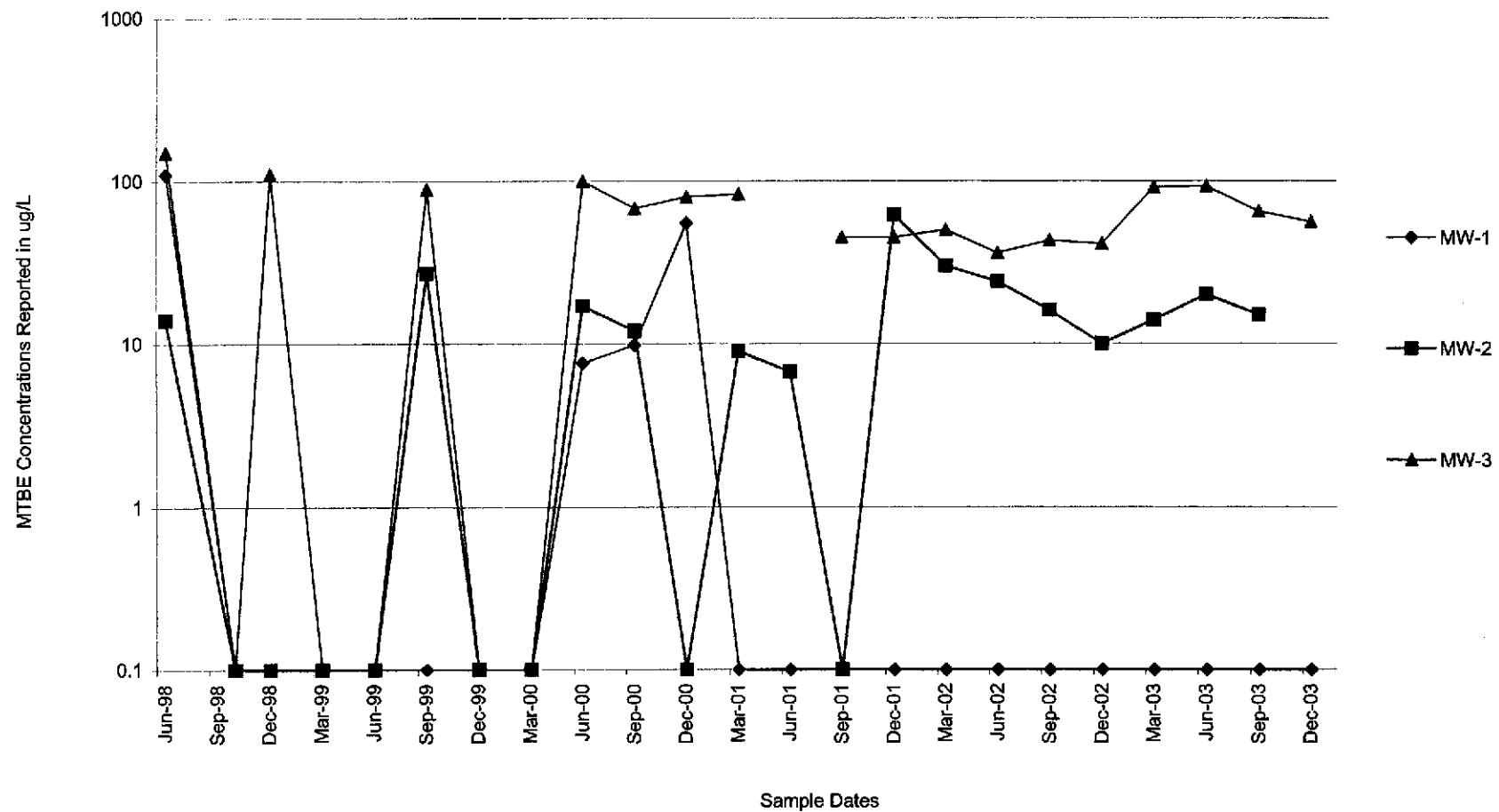


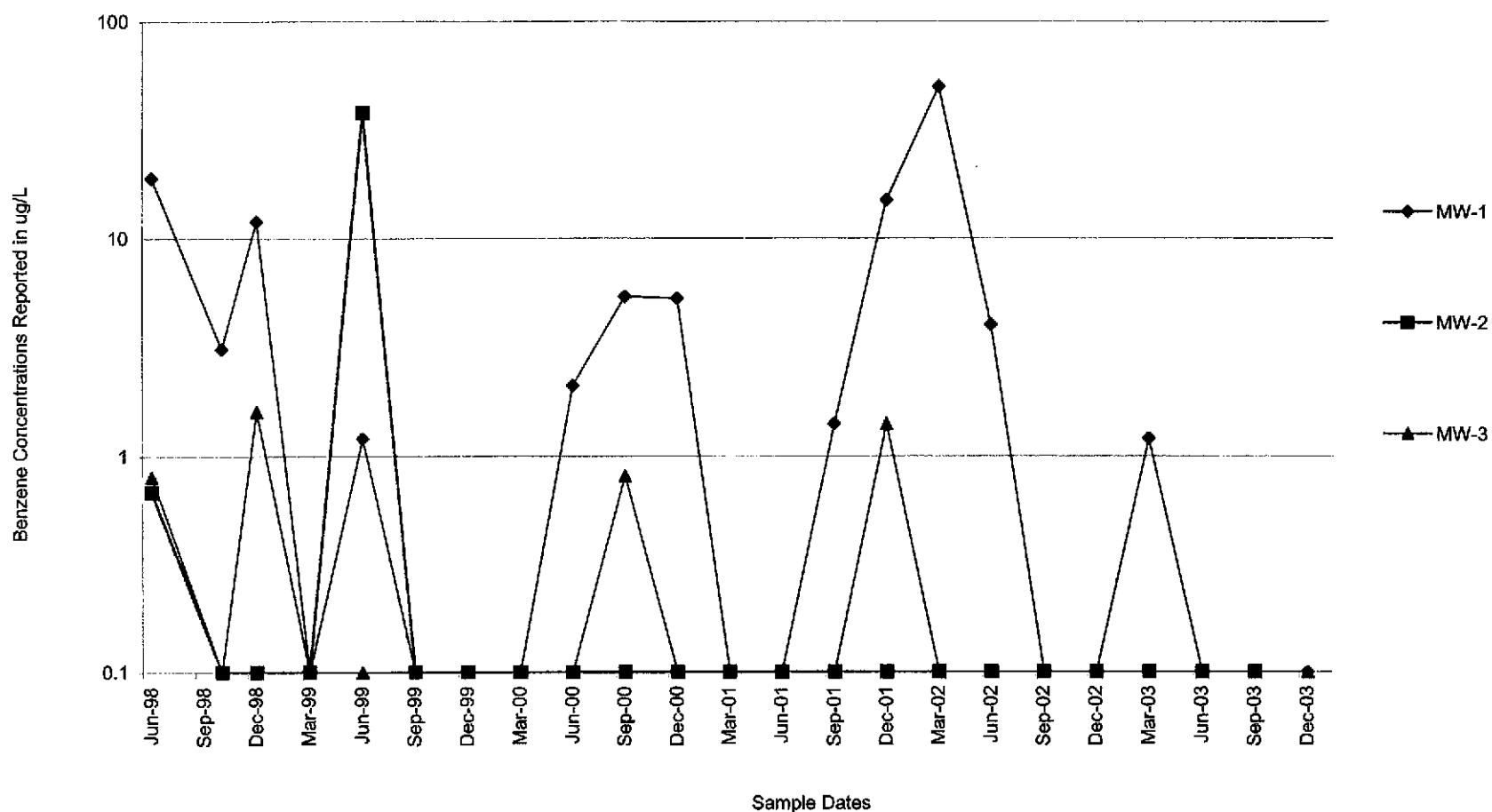
Chart 3  
Historical TPHg Concentrations - Fourth Quarter 2003  
Mission Valley Rock Company  
Sunol, California



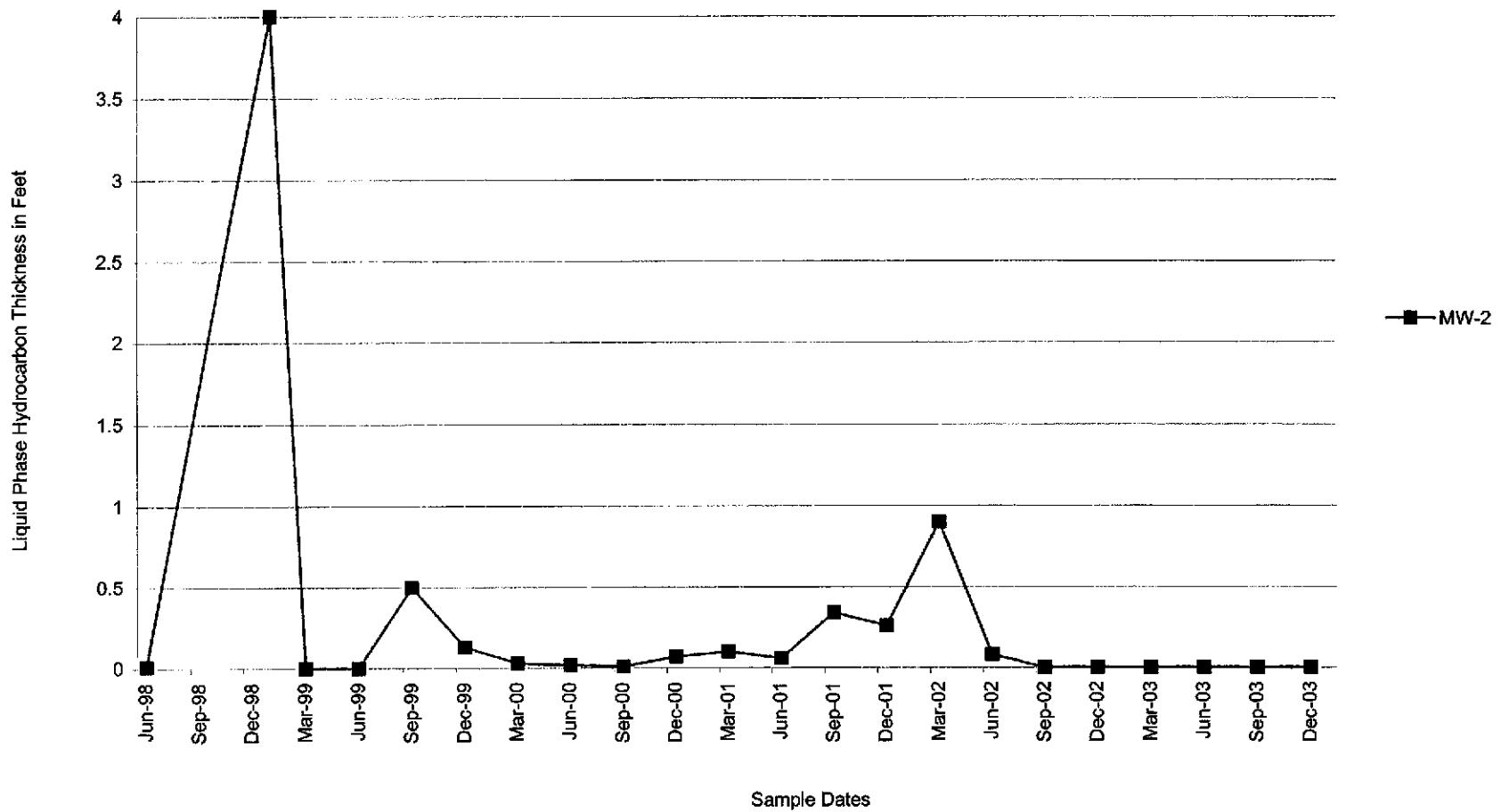
**Chart 4**  
**Historical MTBE Concentrations - Fourth Quarter 2003**  
Mission Valley Rock Company  
Sunol, California



**Chart 5**  
**Historical Benzene Concentrations -Fourth Quarter 2003**  
Mission Valley Rock Company  
Sunol, California



**Chart 6**  
**Historical Liquid Phase Hydrocarbon Thickness in Well MW-2**  
Mission Valley Rock Company  
Sunol, California





TAIT Environmental Management, Inc

## Groundwater Sampling Data Sheet

Page 1 of 2

<b>Project Name:</b> Mission Valley Rock						<b>Date:</b> 12/22/2003						
<b>Project No.:</b> EM-5009						<b>Prepared By:</b> Greg Buchanan						
<b>Well Identification:</b> MW-1						<b>Pump Intake Depth (ft-bmp):</b> ~10.00						
<b>Measurement Point Description:</b> Top of casing at northside												
<b>Depth to LNAPL (ft-bmp)</b>	<b>Depth to Static Water Level (ft-bmp)</b>		<b>Well Total Depth (ft-bmp)</b>		<b>Water Column Height (ft)</b>		<b>LNAPL Thickness (ft)</b>		<b>One (1) Casing Volume (gallons)</b>		<b>Three (3) Casing Volumes (gallons)</b>	
Not Detected	4.6		18.95		14.35		Not Detected		2.29		6.88	
<b>Well Diameter (in)</b>			<b>Gallons/Foot</b>				<b>Field Equipment:</b> Solinst Interface Meter; Horiba U-22 Water Parameter Meter					
			0.75	2	4	6	<b>Purge Method:</b> 12-Volt DC Whale Pump					
0.75	2	4	6	0.02	0.16	0.65	1.47	<b>Well Condition:</b> Good				
Time	Casing Volumes Purged	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	pH	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Observations	
7:15	1	2	-	NA	5.0	20.63	175	2.6	0	NA	Cloudy	
7:17	2	4	-	NA	4.93	20.60	205	2.63	0	NA	Cloudy	
7:20	3	7	-	NA	4.95	20.63	170	2.60	0	NA	Cloudy	
<b>Purge Start Time</b>	<b>Purge End Time</b>	<b>Average Flow (gpm)</b>	<b>Total Gallons Purged</b>	<b>Total Casing Volumes Purged</b>	<b>80% Recovery Water Level Depth</b>	<b>Water Level at Sampling Time (ft-bmp)</b>	<b>Sample Collection Time</b>	<b>Sample Identification</b>				
7:13	7:20	1.0	7	3	7.47	13.90	8:15	MW-1				

**Notes:**



TAIT Environmental Management, Inc

## Groundwater Sampling Data Sheet

Page 2 of 2

<b>Project Name:</b> Mission Valley Rock				<b>Date:</b> 12/22/2003								
<b>Project No.:</b> EM-5009				<b>Prepared By:</b> Greg Buchanan								
<b>Well Identification:</b> MW-3				<b>Pump Intake Depth (ft-bmp):</b> ~10.00								
<b>Measurement Point Description:</b> Top of casing at northside												
Depth to LNAPL (ft-bmp)		Depth to Static Water Level (ft-bmp)		Well Total Depth (ft-bmp)		Water Column Height (ft)		LNAPL Thickness (ft)		One (1) Casing Volume (gallons)		
Not Detected		7.2		16.98		9.78		Not Detected		1.56		
<b>Well Diameter (in)</b>			<b>Gallons/Foot</b>				<b>Field Equipment:</b> Solinst Interface Meter; Horiba U-22 Water Parameter Meter					
			0.75	2	4	6	<b>Purge Method:</b> 12-Volt DC Whale Pump					
0.75	2	4	6	0.02	0.16	0.65	1.47	<b>Well Condition:</b> Well Box Damaged				
Time	Casing Volumes Purged	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	pH	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Observations	
7:31	1	1.5	-	NA	5.14	22.30	710	1.3	0	.29	Grey/Cloudy	
7:33	2	3.0	-	NA	5.16	22.30	275	1.4	0	.29	Grey/Cloudy	
7:35	3	5.0	-	NA	7.24	22.20	245.0	1.97	NA	.29	Grey/Cloudy	
Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification				
7:30	7:35	0.7	4.5	3	9.15	6.90	8:45	MW-3				

**Notes:**

January 14, 2004

STL LOT NUMBER: E3L230349

Saeed Haider  
Tait Environmental  
701 Park Center Dr  
Santa Ana, CA 92705

Dear Mr. Haider,

This report contains the analytical results for the three samples received under chain of custody by STL Los Angeles on December 23, 2003. These samples are associated with your MISSION VALLEY ROCK, SUNOL, CA project.

STL Los Angeles certifies that the test results provided in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of the report. NELAP Certification Number for STL Los Angeles is 01118CA.

Any matrix related anomaly is footnoted within the report. A cooler receipt temperature between 2-6 degrees Celsius is within EPA acceptance criteria. The temperature(s) of the cooler received for this project can be found on the Project Receipt Checklist. Historical control limits for the LCS are used to define the estimate of uncertainty for a method. All applicable quality control procedures met method-specified acceptance criteria except as noted on the following page.

Preliminary results were sent via facsimile on Friday, January 09, 2004.

This report shall not be reproduced except in full, without the written approval of the laboratory.

**000041**

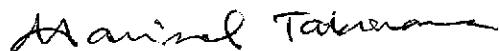
This report contains \_\_\_\_\_ pages.

## CASE NARRATIVE

There was insufficient sample volume provided to prepare a project-specific MS/MSD for the Extractable Petroleum Hydrocarbons analysis. A duplicate LCS has been prepared to provide accuracy and precision measurement for the samples in this project.

If you have any questions, please feel free to call me at (714) 258-8610.

Sincerely,



Marisol Tabirara  
Project Manager

cc: Project File



000002

SEVERN  
TRENT

**STL**

# Analytical Report

## **ANALYTICAL REPORT**

**MISSION VALLEY ROCK, SUNOL, CA**

**Lot #: E3L230349**

**Saeed Haider**

**Tait Environmental**

**SEVERN TRENT LABORATORIES, INC.**

**Marisol Tabirara  
Project Manager**

**January 14, 2004**

## EXECUTIVE SUMMARY - Detection Highlights

E3L230349

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
MW-1 12/22/03 08:15 001				
TPH (as Gasoline)	0.49	0.10	mg/L	SW846 8015B
Ethylbenzene	3.0	1.0	ug/L	SW846 8260B
n-Propylbenzene	1.7	1.0	ug/L	SW846 8260B
MW-3 12/22/03 08:45 002				
TPH (as Diesel)	5.7	1.0	mg/L	SW846 8015B
TPH (as Gasoline)	0.19	0.10	mg/L	SW846 8015B
Methyl tert-butyl ether	56	2.0	ug/L	SW846 8260B
Naphthalene	2.4	2.0	ug/L	SW846 8260B

## METHODS SUMMARY

E3L230349

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Extractable Petroleum Hydrocarbons	SW846 8015B	SW846 3510
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B/826
Volatile Petroleum Hydrocarbons	SW846 8015B	SW846 5030

**References:**

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

# SAMPLE SUMMARY

E3L230349

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
F7A3H	001	MW-1	12/22/03	08:15
F7A3J	002	MW-3	12/22/03	08:45
F7A3K	003	TRIP BLANK	12/22/03	

## NOTE (S) :

The analytical results of the samples listed above are presented on the following pages.

- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

## TAIT ENVIRONMENTAL

Client Sample ID: MW-1

## GC/MS Volatiles

Lot Sample #....: E3L230349-001    Work Order #....: F7A3H1AD    Matrix.....: WATER  
 Date Sampled....: 12/22/03 08:15    Date Received...: 12/23/03 13:00 MS Run #.....: 3365093  
 Prep Date.....: 12/30/03    Analysis Date...: 12/30/03  
 Prep Batch #....: 3365257    Analysis Time...: 16:23  
 Dilution Factor: 1  
 Analyst ID.....: 004648    Instrument ID...: MSK  
 Method.....: SW846 8260B

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
2-Butanone	ND	5.0	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	2.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L

(Continued on next page)

## TAIT ENVIRONMENTAL

Client Sample ID: MW-1

## GC/MS Volatiles

Lot Sample #....: E3L230349-001 Work Order #....: F7A3H1AD Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
cis 1,3-Dichloropropene	ND	1.0	ug/L
trans 1,3-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	3.0	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
2-Hexanone	ND	5.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Methyl tert-butyl ether	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
n-Propylbenzene	1.7	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,2,4-Trichloro-	ND	1.0	ug/L
benzene			
1,1,1 Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,1,2-Trichlorotrifluoro-	ND	1.0	ug/L
ethane			
1,2,4 Trimethylbenzene	ND	1.0	ug/L
1,3,5 Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	2.0	ug/L
m-Xylene & p-Xylene	ND	1.0	ug/L
o-Xylene	ND	1.0	ug/L
Tert amyl methyl ether	ND	2.0	ug/L
Tert-butyl ethyl ether	ND	2.0	ug/L
t-Butanol	ND	25	ug/L
Isopropyl ether	ND	2.0	ug/L
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	
Bromofluorobenzene	93	(75 - 130)	
1,2 Dichloroethane-d4	116	(65 - 135)	
Toluene-d8	103	(80 - 130)	

## TAIT ENVIRONMENTAL

Client Sample ID: MW-1

## GC Volatiles

Lot Sample #....: E3L230349-001    Work Order #....: F7A3H1AC    Matrix.....: WATER  
Date Sampled....: 12/22/03 08:15    Date Received...: 12/23/03 13:00 MS Run #.....: 3364008  
Prep Date.....: 12/24/03    Analysis Date...: 12/24/03  
Prep Batch #....: 3364097    Analysis Time...: 12:04  
Dilution Factor: 1  
Analyst ID.....: 001464    Instrument ID...: G13  
                            Method.....: SW846 8015B

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
TPH (as Gasoline)	0.49	0.10	mg/L
<hr/>			
SURROGATE	PERCENT	RECOVERY	
	RECOVERY	LIMITS	
a,a,a-Trifluorotoluene (TFT)	127	(70 - 130)	

NOTE(S) :

The gasoline pattern appears degraded.

TAIT ENVIRONMENTAL

Client Sample ID: MW-1

GC Semivolatiles

Lot-Sample #....: E3L230349-001 Work Order #....: F7A3H1AA Matrix.....: WATER  
Date Sampled....: 12/22/03 08:15 Date Received...: 12/23/03 13:00 MS Run #.....:  
Prep Date.....: 12/26/03 Analysis Date...: 12/30/03  
Prep Batch #....: 3360377 Analysis Time...: 16:35  
Dilution Factor: 1  
Analyst ID.....: 356074 Instrument ID...: G03  
Method.....: SW846 8015B

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
TPH (as Diesel)	ND	1.0	mg/L
SURROGATE	PERCENT	RECOVERY	LIMITS
Benzo(a)pyrene	95	(70 - 125)	

NOTE(S) :

The pattern does not match diesel. C range-C10 to beyond C24.

## TAIT ENVIRONMENTAL

Client Sample ID: MW-3

## GC/MS Volatiles

Lot-Sample #....: E3L230349-002    Work Order #....: F7A3J1AD    Matrix.....: WATER  
 Date Sampled....: 12/22/03 08:45    Date Received...: 12/23/03 13:00    MS Run #.....: 4002108  
 Prep Date.....: 12/31/03    Analysis Date...: 12/31/03  
 Prep Batch #....: 4002313    Analysis Time...: 11:39  
 Dilution Factor: 2  
 Analyst ID.....: 004648    Instrument ID...: MSK  
 Method.....: SW846 8260B

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
Acetone	ND	20	ug/L
Benzene	ND	2.0	ug/L
Bromobenzene	ND	2.0	ug/L
Bromochloromethane	ND	2.0	ug/L
Bromoform	ND	2.0	ug/L
Bromomethane	ND	4.0	ug/L
2-Butanone	ND	10	ug/L
n-Butylbenzene	ND	2.0	ug/L
sec-Butylbenzene	ND	2.0	ug/L
tert-Butylbenzene	ND	2.0	ug/L
Carbon disulfide	ND	2.0	ug/L
Carbon tetrachloride	ND	2.0	ug/L
Chlorobenzene	ND	2.0	ug/L
Dibromochloromethane	ND	2.0	ug/L
Bromodichloromethane	ND	2.0	ug/L
Chloroethane	ND	4.0	ug/L
Chloroform	ND	2.0	ug/L
Chloromethane	ND	4.0	ug/L
2-Chlorotoluene	ND	2.0	ug/L
4-Chlorotoluene	ND	2.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	4.0	ug/L
1,2-Dibromoethane (EDB)	ND	2.0	ug/L
Dibromomethane	ND	2.0	ug/L
1,2-Dichlorobenzene	ND	2.0	ug/L
1,3-Dichlorobenzene	ND	2.0	ug/L
1,4-Dichlorobenzene	ND	2.0	ug/L
Dichlorodifluoromethane	ND	4.0	ug/L
1,1-Dichloroethane	ND	2.0	ug/L
1,2-Dichloroethane	ND	2.0	ug/L
1,1-Dichloroethene	ND	2.0	ug/L
cis-1,2-Dichloroethene	ND	2.0	ug/L
trans-1,2-Dichloroethene	ND	2.0	ug/L
1,2-Dichloropropane	ND	2.0	ug/L
1,3-Dichloropropane	ND	2.0	ug/L
2,2-Dichloropropane	ND	2.0	ug/L
1,1-Dichloropropene	ND	2.0	ug/L

(Continued on next page)

## TAIT ENVIRONMENTAL

Client Sample ID: MW-3

## GC/MS Volatiles

Lot Sample #....: E3L230349-002 Work Order #....: F7A3J1AD Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,3-Dichloropropene	ND	2.0	ug/L
trans 1,3-Dichloropropene	ND	2.0	ug/L
Ethylbenzene	ND	2.0	ug/L
Hexachlorobutadiene	ND	2.0	ug/L
2-Hexanone	ND	10	ug/L
Isopropylbenzene	ND	2.0	ug/L
p-Isopropyltoluene	ND	2.0	ug/L
Methylene chloride	ND	2.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
Methyl tert-butyl ether	56	2.0	ug/L
Naphthalene	2.4	2.0	ug/L
n-Propylbenzene	ND	2.0	ug/L
Styrene	ND	2.0	ug/L
1,1,1,2-Tetrachloroethane	ND	2.0	ug/L
1,1,2,2-Tetrachloroethane	ND	2.0	ug/L
Tetrachloroethene	ND	2.0	ug/L
Toluene	ND	2.0	ug/L
1,2,3-Trichlorobenzene	ND	2.0	ug/L
1,2,4-Trichloro-	ND	2.0	ug/L
benzene			
1,1,1-Trichloroethane	ND	2.0	ug/L
1,1,2-Trichloroethane	ND	2.0	ug/L
Trichloroethene	ND	2.0	ug/L
Trichlorofluoromethane	ND	4.0	ug/L
1,2,3-Trichloropropane	ND	2.0	ug/L
1,1,2-Trichlorotrifluoro-	ND	2.0	ug/L
ethane			
1,2,4-Trimethylbenzene	ND	2.0	ug/L
1,3,5-Trimethylbenzene	ND	2.0	ug/L
Vinyl chloride	ND	4.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	2.0	ug/L
Tert amyl methyl ether	ND	4.0	ug/L
Tert-butyl ethyl ether	ND	4.0	ug/L
t-Butanol	ND	50	ug/L
Isopropyl ether	ND	4.0	ug/L
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS	
Bromofluorobenzene	84	(75 - 130)	
1,2 Dichloroethane-d4	96	(65 - 135)	
Toluene-d8	96	(80 - 130)	

## TRIT ENVIRONMENTAL

Client Sample ID: MW-3

## GC Volatiles

Lot-Sample #....: E3L230349-002 Work Order #....: F7A3J1AC Matrix.....: WATER  
Date Sampled....: 12/22/03 08:45 Date Received...: 12/23/03 13:00 MS Run #.....: 3364008  
Prep Date.....: 12/24/03 Analysis Date...: 12/24/03  
Prep Batch #....: 3364097 Analysis Time...: 12:32  
Dilution Factor: 1  
Analyst ID.....: 001464 Instrument ID...: G13  
Method.....: SW846 8015B

		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
TPH (as Gasoline)	0.19	0.10	mg/L
SURROGATE	PERCENT	RECOVERY	
a, a, a-Trifluorotoluene (TFT)	RECOVERY	LIMITS	
	88	(70 - 130)	

## NOTE(S) :

Unknown hydrocarbon pattern.

TAIT ENVIRONMENTAL

Client Sample ID: MW-3

GC Semivolatiles

Lot-Sample #....: E3L230349-002    Work Order #....: F7A3J1AA    Matrix.....: WATER  
Date Sampled....: 12/22/03 08:45    Date Received...: 12/23/03 13:00 MS Run #.....:  
Prep Date.....: 12/26/03    Analysis Date...: 12/30/03  
Prep Batch #....: 3360377    Analysis Time...: 07:14  
Dilution Factor: 1  
Analyst ID.....: 356074    Instrument ID...: G03  
                            Method.....: SW846 8015B

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
TPH (as Diesel)	5.7	1.0	mg/L
PERCENT			RECOVERY
SURROGATE	RECOVERY	LIMITS	
Benzo(a)pyrene	55 *,I	(70 - 125)	

NOTE(S) :

\* Surrogate recovery is outside stated control limits.

I Matrix interference.

The pattern does not match diesel. C range-C10 to beyond C24

## TAIT ENVIRONMENTAL

Client Sample ID: TRIP BLANK

## GC/MS Volatiles

Lot-Sample #....: E3L230349-003  
 Date Sampled....: 12/22/03  
 Prep Date.....: 12/30/03  
 Prep Batch #....: 3365257  
 Dilution Factor: 1  
 Analyst ID.....: 004648

Work Order #....: F7A3K1AA  
 Date Received...: 12/23/03 13:00 MS Run #.....: 3365093  
 Analysis Date...: 12/30/03  
 Analysis Time...: 10:28  
 Instrument ID...: MSK  
 Method.....: SW846 8260B

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromo-chloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
2-Butanone	ND	5.0	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert Butylbenzene	ND	1.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Dibromo-chloromethane	ND	1.0	ug/L
Bromo-dichloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	2.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis 1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L

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## TAIT ENVIRONMENTAL

Client Sample ID: TRIP BLANK

## GC/MS Volatiles

Lot-Sample #....: E3L230349-003 Work Order #....: F7A3K1AA Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans 1,3-Dichloropropene	ND	1.0	ug/L
Ethyibenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
2-Hexanone	ND	5.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Methyl tert-butyl ether	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,2,4-Trichloro- benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,1,2-Trichlorotrifluoro- ethane	ND	1.0	ug/L
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	2.0	ug/L
m-Xylene & p-Xylene	ND	1.0	ug/L
o-Xylene	ND	1.0	ug/L
Tert amyl methyl ether	ND	2.0	ug/L
Tert-butyl ethyl ether	ND	2.0	ug/L
t-Butanol	ND	25	ug/L
Isopropyl ether	ND	2.0	ug/L
<u>SURROGATE</u>		<u>PERCENT</u>	<u>RECOVERY</u>
		<u>RECOVERY</u>	<u>LIMITS</u>
Bromo-fluorobenzene	81	(75 - 130)	
1,2-Dichloroethane-d4	96	(65 - 135)	
Toluene-d8	108	(80 - 130)	

**SEVERN  
TRENT**

**STL**

**QA/QC**

# QC DATA ASSOCIATION SUMMARY

E3L230349

## Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	SW846 8015B		3360377	
	WATER	SW846 8015B		3364097	3364008
	WATER	SW846 8260B		3365257	3365093
002	WATER	SW846 8015B		3360377	
	WATER	SW846 8015B		3364097	3364008
	WATER	SW846 8260B		4002313	4002108
003	WATER	SW846 8260B		3365257	3365093

**METHOD BLANK REPORT**

**GC/MS Volatiles**

Client Lot #....: E3L230349  
 MB Lot-Sample #: E3L310000-257  
 Analysis Date...: 12/30/03  
 Dilution Factor: 1

Work Order #....: F7G9H1AA  
 Prep Date.....: 12/30/03  
 Prep Batch #....: 3365257  
 Analyst ID.....: 004648

Matrix.....: WATER  
 Analysis Time...: 09:56  
 Instrument ID..: MSK

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	2.0	ug/L	SW846 8260B
2-Butanone	ND	5.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	2.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	2.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-	ND	2.0	ug/L	SW846 8260B
propane				
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	2.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans 1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans 1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B

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## METHOD BLANK REPORT

## GC/MS Volatiles

Client Lot #...: E3L230349

Work Order #...: F7G9H1AA

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>
		<u>LIMIT</u>	<u>UNITS</u>	
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
Methyl tert-butyl ether	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4 Trichloro- benzene	ND	1.0	ug/L	SW846 8260B
1,1,1 Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2 Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	2.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,1,2 Trichlorotrifluoro- ethane	ND	1.0	ug/L	SW846 8260B
1,2,4 Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5 Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
Tert amyl methyl ether	ND	2.0	ug/L	SW846 8260B
Tert butyl ethyl ether	ND	2.0	ug/L	SW846 8260B
t-Butanol	ND	25	ug/L	SW846 8260B
Isopropyl ether	ND	2.0	ug/L	SW846 8260B
<u>SURROGATE</u>		<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	
Bromo fluorobenzene	81		(75 - 130)	
1,2-Dichloroethane-d4	99		(65 - 135)	
Toluene-d8	96		(80 - 130)	

## NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

## METHOD BLANK REPORT

## GC/MS Volatiles

Client Lot #....: E3L230349  
 MB Lot-Sample #: E4A020000-313  
 Analysis Date...: 12/31/03  
 Dilution Factor: 1

Work Order #....: F7JFX1AA

Matrix.....: WATER

Prep Date.....: 12/31/03  
 Prep Batch #....: 4002313

Analysis Time..: 14:48  
 Instrument ID..: MSK

Analyst ID.....: 004648

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	2.0	ug/L	SW846 8260B
2-Butanone	ND	5.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	2.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	2.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-	ND	2.0	ug/L	SW846 8260B
propane				
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	2.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B

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**METHOD BLANK REPORT**

**GC/MS Volatiles**

Client Lot #....: E3L230349

Work Order #....: F7JFX1AA

Matrix.....: WATER

PARAMETER	RESULT	REPORTING		METHOD
		LIMIT	UNITS	
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
Methyl tert-butyl ether	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-	ND	1.0	ug/L	SW846 8260B
benzene				
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	2.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichlorotrifluoro-	ND	1.0	ug/L	SW846 8260B
ethane				
1,2,4 Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5 Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
Tert amyl methyl ether	ND	2.0	ug/L	SW846 8260B
Tert-butyl ethyl ether	ND	2.0	ug/L	SW846 8260B
t-Butanol	ND	25	ug/L	SW846 8260B
Isopropyl ether	ND	2.0	ug/L	SW846 8260B
SURROGATE		PERCENT	RECOVERY	
		RECOVERY	LIMITS	
Bromofluorobenzene	87		(75 - 130)	
1,2-Dichloroethane-d4	104		(65 - 135)	
Toluene-d8	102		(80 - 130)	

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: E3L230349  
MB Lot-Sample #: E3L300000-097  
Analysis Date...: 12/24/03  
Dilution Factor: 1

Work Order #...: F7EWE1AA  
Prep Date.....: 12/24/03  
Prep Batch #: 3364097  
Analyst ID.....: 001464

Matrix.....: WATER  
Analysis Time..: 01:20  
Instrument ID..: G13

PARAMETER	RESULT	REPORTING		METHOD
		LIMIT	UNITS	
TPH (.s Gasoline)	ND	0.10	mg/L	SW846 8015B
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS		
a,a,a Trifluorotoluene (TFT)	81	(70 - 130)		

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: E3L230349  
MB Lot-Sample #: E3L260000-377  
Analysis Date..: 12/30/03  
Dilution Factor: 1

Work Order #...: F7C9P1AA  
Prep Date.....: 12/26/03  
Prep Batch #...: 3360377  
Analyst ID.....: 356074

Matrix.....: WATER  
Analysis Time..: 03:18  
Instrument ID..: G03

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
TPH (as Diesel)	ND	1.0	mg/L	SW846 8015B
SURROGATE	PERCENT <u>RECOVERY</u> 106	RECOVERY <u>LIMITS</u> (70 - 125)		

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC/MS Volatiles

Client Lot #....: E3L230349      Work Order #....: F7G9H1AC      Matrix.....: WATER  
 LCS Lot-Sample#: E3L310000-257  
 Prep Date.....: 12/30/03      Analysis Date...: 12/30/03  
 Prep Batch #....: 3365257      Analysis Time...: 08:46  
 Dilution Factor: 1      Instrument ID...: MSK  
 Analyst ID.....: 004648

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>
Benzene	101	(75 - 125)	SW846 8260B
Chlorobenzene	95	(75 - 125)	SW846 8260B
1,1-Dichloroethene	97	(65 - 135)	SW846 8260B
Toluene	103	(75 - 125)	SW846 8260B
Trichloroethene	104	(75 - 135)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Bromofluorobenzene	84	(75 - 130)
1,2-Dichloroethane-d4	82	(65 - 135)
Toluene-d8	93	(80 - 130)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Volatiles

Client Lot #....: E3L230349      Work Order #....: F7G9H1AC      Matrix.....: WATER  
 LCS Lot-Sample#: E3L310000-257  
 Prep Date.....: 12/30/03      Analysis Date...: 12/30/03  
 Prep Batch #....: 3365257      Analysis Time...: 08:46  
 Dilution Factor: 1      Instrument ID...: MSK  
 Analyst ID.....: 004648

<u>PARAMETER</u>	SPIKE <u>AMOUNT</u>	MEASURED <u>AMOUNT</u>	UNITS	PERCENT <u>RECOVERY</u>	METHOD
Benzene	10.0	10.1	ug/L	101	SW846 8260B
Chlorobenzene	10.0	9.50	ug/L	95	SW846 8260B
1,1-Dichloroethene	10.0	9.73	ug/L	97	SW846 8260B
Toluene	10.0	10.3	ug/L	103	SW846 8260B
Trichloroethene	10.0	10.4	ug/L	104	SW846 8260B

<u>SURROGATE</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>
Bromofluorobenzene	84	(75 - 130)
1,2-Dichloroethane-d4	82	(65 - 135)
Toluene-d8	93	(80 - 130)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC/MS Volatiles

**Client Lot #....:** E3L230349      **Work Order #....:** F7JFX1AC      **Matrix.....:** WATER  
**LCS Lot-Sample#:** E4A020000-313  
**Prep Date.....:** 12/31/03      **Analysis Date...:** 12/31/03  
**Prep Batch #....:** 4002313      **Analysis Time...:** 08:52  
**Dilution Factor:** 1      **Instrument ID...:** MSK  
**Analyst ID.....:** 004648

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>
Benzene	122	(75 - 125)	SW846 8260B
Chlorobenzene	103	(75 - 125)	SW846 8260B
1,1-Dichloroethene	100	(65 - 135)	SW846 8260B
Toluene	110	(75 - 125)	SW846 8260B
Trichloroethene	109	(75 - 135)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Bromofluorobenzene	104	(75 - 130)
1,2-Dichloroethane-d4	102	(65 - 135)
Toluene-d8	119	(80 - 130)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

**LABORATORY CONTROL SAMPLE DATA REPORT**

**GC/MS Volatiles**

Client Lot #....:	E3L230349	Work Order #....:	F7JFX1AC	Matrix.....:	WATER
LCS Lot-Sample#:	E4A020000-313				
Prep Date.....:	12/31/03	Analysis Date...:	12/31/03		
Prep Batch #....:	4002313	Analysis Time...:	08:52		
Dilution Factor:	1	Instrument ID...:	MSK		
Analyst ID.....:	004648				

<u>PARAMETER</u>	SPIKE <u>AMOUNT</u>	MEASURED <u>AMOUNT</u>	UNITS	PERCENT <u>RECOVERY</u>	METHOD
Benzene	10.0	12.2	ug/L	122	SW846 8260B
Chlorobenzene	10.0	10.3	ug/L	103	SW846 8260B
1,1-Dichloroethene	10.0	9.95	ug/L	100	SW846 8260B
Toluene	10.0	11.0	ug/L	110	SW846 8260B
Trichloroethene	10.0	10.9	ug/L	109	SW846 8260B

<u>SURROGATE</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>
Bromofluorobenzene	104	(75 - 130)
1,2 Dichloroethane-d4	102	(65 - 135)
Toluene-d8	119	(80 - 130)

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Hold print denotes control parameters.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: E3L230349      Work Order #...: F7EWE1AC      Matrix.....: WATER  
LCS Lot-Sample#: E3L300000-097  
Prep Date.....: 12/24/03      Analysis Date...: 12/24/03  
Prep Batch #:...: 3364097      Analysis Time...: 00:52  
Dilution Factor: 1      Instrument ID...: G13  
Analyst ID.....: 001464

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
TPH (as Gasoline)	113	(70 - 140)	SW846 8015B
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS	
a,a,n-Trifluorotoluene (TFT)	121	(70 - 130)	

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC Volatiles

Client Lot #....: E3L230349      Work Order #....: F7EWE1AC      Matrix.....: WATER  
 LCS Lot-Sample#: E3L300000-097  
 Prep Date.....: 12/24/03      Analysis Date...: 12/24/03  
 Prep Batch #....: 3364097      Analysis Time...: 00:52  
 Dilution Factor: 1      Instrument ID...: G13  
 Analyst ID.....: 001464

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCENT RECOVERY</u>	<u>METHOD</u>
TPH (as Gasoline)	1.00	1.13	mg/L	113	SW846 8015B
<u>SURROGATE</u>		<u>PERCENT RECOVERY</u>		<u>RECOVERY LIMITS</u>	
a,a,a-Trifluorotoluene (TFT)		121		(70 - 130)	

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

### GC Semivolatiles

Client Lot #....: E3L230349      Work Order #....: F7C9P1AC-LCS      Matrix.....: WATER  
LCS Lot-Sample#: E3L260000-377      F7C9P1AD-LCSD  
Prep Date.....: 12/26/03      Analysis Date...: 12/30/03  
Prep Batch #....: 3360377      Analysis Time...: 03:57  
Dilution Factor: 1      Instrument ID...: G03  
Analyst ID.....: 356074

<u>PARAMETER</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>RPD</u>	<u>LIMITS</u>	<u>METHOD</u>
	<u>RECOVERY</u>	<u>LIMITS</u>	<u>RPD</u>	<u>LIMITS</u>	
TPH (as Diesel)	106	(70 - 125)			SW846 8015B
	88	(70 - 125)	18	(0-25)	SW846 8015B

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Benz(a)pyrene	108	(70 - 125)
	90	(70 - 125)

#### NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC Semivolatiles

Client Lot #....: E3L230349      Work Order #....: F7C9P1AC-LCS      Matrix.....: WATER  
**LCS Lot-Sample#:** E3L260000-377      F7C9P1AD-LCSD  
 Prep Date.....: 12/26/03      Analysis Date...: 12/30/03  
 Prep Batch #....: 3360377      Analysis Time...: 03:57  
 Dilution Factor: 1      Instrument ID...: G03  
 Analyst ID.....: 356074

<u>PARAMETER</u>	SPIKE <u>AMOUNT</u>	MEASURED <u>AMOUNT</u>	UNITS	PERCENT <u>RECOVERY</u>	RPD	METHOD
TPH (as Diesel)	5.00	5.29	mg/L	106		SW846 8015B
	5.00	4.39	mg/L	88	18	SW846 8015B
<u>SURROGATE</u>				PERCENT <u>RECOVERY</u>	RECOVERY	
Benzo(a)pyrene				108	(70 - 125)	
				90	(70 - 125)	
				<u>RECOVERY</u>	<u>LIMITS</u>	

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

## GC/MS Volatiles

Client Lot #....: E3L230349 Work Order #....: F7A3H1AE-MS Matrix.....: WATER  
MS Lot-Sample #: E3L230349-001 F7A3H1AF-MSD  
Date Sampled...: 12/22/03 08:15 Date Received...: 12/23/03 13:00 MS Run #:.....: 3365093  
Prep Date.....: 12/30/03 Analysis Date...: 12/30/03  
Prep Batch #...: 3365257 Analysis Time...: 18:45  
Dilution Factor: 1 Analyst ID.....: 004648 Instrument ID...: MSK

PARAMETER	PERCENT	RECOVERY	RPD	RPD LIMITS	METHOD
	RECOVERY	LIMITS			
Benzene	128 a, MSC	(75 - 125)	3.9	(0-25)	SW846 8260B
	123 MSC	(75 - 125)			SW846 8260B
Chlorobenzene	99	(75 - 125)	0.40	(0-25)	SW846 8260B
	100	(75 - 125)			SW846 8260B
1,1-Dichloroethene	105	(65 - 135)	3.1	(0-25)	SW846 8260B
	102	(65 - 135)			SW846 8260B
Toluene	102	(75 - 125)	1.2	(0-25)	SW846 8260B
	104	(75 - 125)			SW846 8260B
Trichloroethene	115	(75 - 135)	4.2	(0-25)	SW846 8260B
	110	(75 - 135)			SW846 8260B

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>LIMITS</u>
	<u>RECOVERY</u>		
Bromofluorobenzene	91		(75 - 130)
	91		(75 - 130)
1,2-Dichloroethane-d4	104		(65 - 135)
	99		(65 - 135)
Toluene-d8	101		(80 - 130)
	101		(80 - 130)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**Bold** prior denotes control parameters

MSC: The percent recovery of this analyte in the associated laboratory control sample is within control limits.

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #....: E3L230349      Work Order #....: F7A3H1AE-MS      Matrix.....: WATER  
 MS Lot-Sample #: E3L230349-001      F7A3H1AF-MSD  
 Date Sampled....: 12/22/03 08:15 Date Received..: 12/23/03 13:00 MS Run #.....: 3365093  
 Prep Date.....: 12/30/03 Analysis Date...: 12/30/03  
 Prep Batch #....: 3365257 Analysis Time...: 18:45  
 Dilution Factor: 1 Analyst ID.....: 004648      Instrument ID...: MSK

PARAMETER	SAMPLE	SPIKE	MEASRD	PERCNT			
	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD	METHOD
Benzene	ND	<b>10.0</b>	<b>13.6</b>	ug/L	128		SW846 8260B
		Qualifiers: a, MSC					
	ND	<b>10.0</b>	<b>13.0</b>	ug/L	123	3.9	SW846 8260B
		Qualifiers: MSC					
Chlorobenzene	ND	<b>10.0</b>	<b>9.94</b>	ug/L	99		SW846 8260B
	ND	<b>10.0</b>	<b>9.98</b>	ug/L	100	0.40	SW846 8260B
1,1-Dichloroethene	ND	<b>10.0</b>	<b>10.5</b>	ug/L	105		SW846 8260B
	ND	<b>10.0</b>	<b>10.2</b>	ug/L	102	3.1	SW846 8260B
Toluene	ND	<b>10.0</b>	<b>10.2</b>	ug/L	102		SW846 8260B
	ND	<b>10.0</b>	<b>10.4</b>	ug/L	104	1.2	SW846 8260B
Trichloroethene	ND	<b>10.0</b>	<b>11.5</b>	ug/L	115		SW846 8260B
	ND	<b>10.0</b>	<b>11.0</b>	ug/L	110	4.2	SW846 8260B
<u>SURROGATE</u>							
PERCENT							
<u>RECOVERY</u>							
LIMITS							
Bromofluorobenzene							
91							
(75 - 130)							
91							
(75 - 130)							
1,2-Dichloroethane-d4							
104							
(65 - 135)							
99							
(65 - 135)							
Toluene-d8							
101							
(80 - 130)							
101							
(80 - 130)							

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MSC The percent recovery of this analyte in the associated laboratory control sample is within control limits.

a Spiked analytic recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #....:	E3L230349	Work Order #....:	F69891AE-MS	Matrix.....:	WATER
MS Lot-Sample #:	E3L230235-004			F69891AF-MSD	
Date Sampled....:	12/18/03 10:31	Date Received...:	12/23/03 10:30	MS Run #.....:	4002108
Prep Date.....:	12/31/03	Analysis Date...:	12/31/03		
Prep Batch #....:	4002313	Analysis Time...:	18:44		
Dilution Factor:	25	Analyst ID.....:	004648	Instrument ID...:	MSK

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>LIMITS</u>	<u>METHOD</u>
Benzene	107	(75 - 125)	6.7	(0-25)	SW846 8260B
	100	(75 - 125)			SW846 8260B
Chlorobenzene	103	(75 - 125)	5.6	(0-25)	SW846 8260B
	97	(75 - 125)			SW846 8260B
1,1-Dichloroethene	111	(65 - 135)	8.2	(0-25)	SW846 8260B
	102	(65 - 135)			SW846 8260B
Toluene	111	(75 - 125)	7.0	(0-25)	SW846 8260B
	103	(75 - 125)			SW846 8260B
Trichloroethene	0.0 NC,MS	(75 - 135)	0.0	(0-25)	SW846 8260B
	0.0 NC,MS	(75 - 135)			SW846 8260B
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>			
Bromofluorobenzene	109	(75 - 130)			
	103	(75 - 130)			
1,2-Dichloroethane-d4	121	(65 - 135)			
	103	(65 - 135)			
Toluene-d8	112	(80 - 130)			
	108	(80 - 130)			

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

**MATRIX SPIKE SAMPLE DATA REPORT**

**GC/MS Volatiles**

Client Lot #....: E3L230349      Work Order #....: F69891AE-MS      Matrix.....: WATER  
 MS Lot Sample #: E3L230235-004      F69891AF-MSD  
 Date Sampled...: 12/18/03 10:31 Date Received...: 12/23/03 10:30 MS Run #.....: 4002108  
 Prep Date.....: 12/31/03 Analysis Date...: 12/31/03  
 Prep Batch #....: 4002313 Analysis Time...: 18:44  
 Dilution Factor: 25 Analyst ID.....: 004648      Instrument ID...: MSK

PARAMETER	SAMPLE	SPIKE	MEASRD	PERCNT			
	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD	METHOD
Benzene	ND	250	268	ug/L	107		SW846 8260B
	ND	250	250	ug/L	100	6.7	SW846 8260B
Chlorobenzene	ND	250	257	ug/L	103		SW846 8260B
	ND	250	243	ug/L	97	5.6	SW846 8260B
1,1-Dichloroethene	ND	250	278	ug/L	111		SW846 8260B
	ND	250	256	ug/L	102	8.2	SW846 8260B
Toluene	ND	250	277	ug/L	111		SW846 8260B
	ND	250	258	ug/L	103	7.0	SW846 8260B
Trichloroethene	1300	250		ug/L	0.0		SW846 8260B
	1300	250		ug/L	0.0	0.0	SW846 8260B
	Qualifiers: NC,MSB						
	Qualifiers: NC,MSB						

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Bromofluorobenzene	109	(75 - 130)
	103	(75 - 130)
1,2-Dichloroethane-d4	121	(65 - 135)
	103	(65 - 135)
Toluene-d8	112	(80 - 130)
	108	(80 - 130)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #....: E3L230349 Work Order #....: F699T1AG-MS Matrix.....: WATER  
MS Lot-Sample #: E3L230238-002 F699T1AH-MSD  
Date Sampled...: 12/22/03 12:45 Date Received..: 12/23/03 10:30 MS Run #.....: 3364008  
Prep Date.....: 12/24/03 Analysis Date...: 12/24/03  
Prep Batch #....: 3364098 Analysis Time...: 02:17  
Dilution Factor: 1 Analyst ID.....: 001464 Instrument ID...: G13

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
TPH (as Gasoline)	126	(70 - 140)			SW846 8015B
	117	(70 - 140)	2.6	(0-25)	SW846 8015B
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>			
a,a,a-Trifluorotoluene (TFT)	118	(60 - 130)			
	120	(60 - 130)			

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters.

MATRIX SPIKE SAMPLE DATA REPORT

GC Volatiles

PARAMETER	SAMPLE	SPIKE	MEASRD	PERCNT			
	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD	METHOD
TPH (as Gasoline)	2.5	1.00	3.78	mg/L	126		SW846 8015B
	2.5	1.00	3.68	mg/L	117	2.6	SW846 8015B

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
a,a,a-Trifluorotoluene (TFT)	118	(60 - 130)
	120	(60 - 130)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**Bold print** denotes control parameters

**Chain of  
Custody Record**

SEVERN  
TRENT

## **Severn Trent Laboratories, Inc.**

STL-4124 (0901)

Client <b>Tai Env. Management</b>		Project Manager <b>Saeed Hander</b>		Date <b>12-23-03</b>	Chain of Custody Number <b>131333</b>											
Address <b>701 N. Park (A-1) Dr.</b>		Telephone Number (Area Code)/Fax Number <b>714-560-2200</b>		Lab Number <b>-</b>	Page <b>1</b> of <b>1</b>											
City <b>Santa Ana</b>	State <b>CA</b>	Zip Code <b>92701</b>	Site Contact <b>Saeed</b>	Lab Contact <b>SONIA</b>	Analysis (Attach list if more space is needed)											
Project Name and Location (State) <b>MISSION VIEJO ROCK, SNOOL, CA</b>		Carrier/Waybill Number <b>-</b>	<b>8015-TPH-15</b>	<b>8015-TPH-3</b>												
Contract/Purchase Order/Quote No.		Matrix		Containers & Preservatives		Special Instructions/Conditions of Receipt										
Sample I.D. No. and Description (Containers for each sample may be combined on one line)		Date	Time	Air <input checked="" type="checkbox"/>	Aqueous <input type="checkbox"/>		Sed. <input type="checkbox"/>	Soil <input type="checkbox"/>	Unpress <input type="checkbox"/>	H2SO4 <input type="checkbox"/>	HNO3 <input type="checkbox"/>	HCl <input type="checkbox"/>	NaOH <input type="checkbox"/>	ZnAc/ NaOH <input type="checkbox"/>		
<b>MW-1 6 (vans)</b>		12/22	8:15	<input checked="" type="checkbox"/>					X					<b>✓ ✓ ✓ ✓ ✓</b>		
<b>MW-1 2 (Amber)</b>		"	"	<input checked="" type="checkbox"/>				X						<b>✓ ✓ ✓ ✓ ✓</b>		
<b>MW-3 6 (vans)</b>		"	8:45	<input checked="" type="checkbox"/>				X		X				<b>✓ ✓ ✓ ✓ ✓</b>		
<b>MW-3 2 (Amber)</b>		"	8:45	<input checked="" type="checkbox"/>				X						<b>✓ ✓ ✓ ✓ ✓</b>		
Possible Hazard Identification		Sample Disposal		(A fee may be assessed if samples are retained)												
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		longer than 1 month)												
Turn Around Time Required		QC Requirements (Specify)														
<input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 7 Days <input type="checkbox"/> 14 Days <input type="checkbox"/> 21 Days <input type="checkbox"/> Other. <b>Normal</b>																
1. Relinquished By <b>Saeed Hander</b>		Date <b>12-23-03</b>	Time	1. Received By											Date	Time
2. Relinquished By		Date	Time	2. Received By											Date	Time
3. Relinquished By		Date	Time	3. Received By											Date	Time

**DISTRIBUTION:** WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

**Chain of  
Custody Record**

SEVERN  
TRENT

STL

**Severn Trent Laboratories, Inc.**

STL-4124 (0901)

Client TARI Env. Management		Project Manager Saeed Haider		Date 12-23-03	Chain of Custody Number 131333										
Address 701 N. Park Ctr. Dr.		Telephone Number (Area Code)/Fax Number 714-560-8200		Lab Number ESL930349	Page 1 of 1										
City Santa Ana	State CA	Zip Code	Site Contact Saeed	Lab Contact SONIA	Analysis (Attach list if more space is needed)										
Project Name and Location (State) MISSIONS VALLEY ROCK, SUNOL, CA		Carrier/Waybill Number -													
Contract/Purchase Order/Quote No.		Matrix		Containers & Preservatives		Special Instructions/ Conditions of Receipt									
Sample I.D. No. and Description (Containers for each sample may be combined on one line)		Date	Time	Air <input checked="" type="checkbox"/>	Aquatic <input type="checkbox"/>		Sed. <input checked="" type="checkbox"/>	Soil <input type="checkbox"/>	Unpress <input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> <input checked="" type="checkbox"/>	HNO <sub>3</sub> <input type="checkbox"/>	HCl <input type="checkbox"/>	NaOH <input type="checkbox"/>	ZnAc <sub>2</sub> / NaOH <input type="checkbox"/>	
MW-1 6 (vials)		12-22	8:15	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	8015-TPH-5 8015-TPH-2	
MW-1 2 (Amber)		"	"	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		82803	
MW-3 6 (vials)		"	8:45	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
MW-3 2 (Amber)		"	8:45	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
TRIP Blank (3 vials)															
Possible Hazard Identification				Sample Disposal				(A fee may be assessed if samples are retained longer than 1 month)							
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months											
Turn Around Time Required				QC Requirements (Specify)											
<input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 7 Days <input type="checkbox"/> 14 Days <input type="checkbox"/> 21 Days <input type="checkbox"/> Other Normal															
1. Relinquished By Saeed Haider		Date 12/23/03		Time		1. Received By Bret Nelson		Date 12/23/03 Time 1220							
2. Relinquished By Bret Nelson		Date 12/23/03		Time 1235		2. Received By Lynn Swant		Date 12-23-03 Time 0320							
3. Relinquished By		Date		Time		3. Received By									

**DISTRIBUTION:** WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

**STL - LOS ANGELES**  
**PROJECT RECEIPT CHECKLIST**

Date: 12/23/03

Quantims Lot #: E3L 230349 Quote#:

Client Name: Tait Project:

Received by: TS Date/Time Received: 12/23/03 @ 1440

Delivered by :  Client  Airborne  Fed Ex  DHL  Ultra-Ex  Rey B.  
 UPS  DES  Other Couriers

Custody Seal Status:  Intact  Broken  None 12/23/03 Initial / Date  
 Custody Seal #(s):  No Seal #

Sample Container(s):  STL-A  Client  N/A

Temperature(s) (COOLER/BLANK) in °C: \_\_\_\_\_ Correction Factor: 0 (Corrected TEMP) 12.7

Thermometer Used:  IR (Infra-red) ID: A  Digital (Probe)

Samples:  Intact  Broken Other \_\_\_\_\_

Anomalies:  No  Yes (See Clouseau)

Labeled by \_\_\_\_\_

Labeling checked by \_\_\_\_\_

Turn Around Time:  RUSH-24HR  RUSH-48HR  RUSH-72HR  NORMAL

Short-Hold Notification:  Ph  Wet Chem  Metals (Filter/Pres)  Encore  N/A

Outside Analysis(es) (Test/Lab/Date Sent Out):  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

\*\*\*\*\* LEAVE NO BLANK SPACES : USE N/A \*\*\*\*\*

naHCl	Na: Sodium Hydride	znna: Zinc Acetate/Sodium Hydroxide	s: H2SO4	a:HNO3	n/HNO3-Field Filtered	v/HNO3-Lab Filtered	
CGG:Clear Glass Jar	CGB:Clear Glass Bottle	AGJ:Amber Glass Jar	AGB:Amber Glass Bottle	PB: Pivit Bottle	E:Encore Sampler	V-VOA	SL-Sleeve

\* Number of VOA's w/ Headspace present

LOGGED BY/DATE:

12/23/03

REVIEWED BY/DATE:

12/26/03

J.C. Rausch Services Inc. Project Receipt Checklist

Version 1.000 - 12/1/00